

EXHIBIT Q

Federal Highway Administration Environmental Justice Reference Guide

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U.S. Department of Transportation
Federal Highway Administration

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Acronyms and Abbreviations

ACS	American Community Survey
Assurance	Standard Title VI Assurances and Nondiscrimination Provisions
CE	Categorical Exclusion
Census	U.S. Census Bureau's Decennial Census of Population
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CSS	Context Sensitive Solutions
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
EJ IWG	Interagency Working Group on Environmental Justice
EJ MOU	2011 Memorandum of Understanding on Environmental Justice and Executive Order 12898
EPA	U.S. Environmental Protection Agency
Executive Order 12898	Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
FHWA	Federal Highway Administration
FHWA EJ Order	FHWA Order 6640.23A, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
FONSI	Finding of No Significant Impact (for an Environmental Assessment)
FTA	Federal Transit Administration
GIS	Geographic Information Systems
HHS	U.S. Department of Health and Human Services
HUD	U.S. Department of Housing and Urban Development
LEP	Limited English Proficiency
MAP-21	Moving Ahead for Progress in the 21 st Century Act
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act of 1969
NHTS	National Household Travel Survey
NHTSA	National Highway Transportation Safety Administration
PEL	Planning and Environmental Linkages
PSC	Interagency Partnership for Sustainable Communities
ROD	Record of Decision (for an Environmental Impact Statement)
ROW	Right-of-Way
SHSP	Strategic Highway Safety Plan
SL RTP	Statewide long-range transportation plan
SPR	Statewide Planning and Research
SRTS	Safe Routes to School
STIP	State Transportation Improvement Program
TCAPP	Transportation for Communities - Advancing Projects through Partnerships

TIP	Transportation Improvement Program
Title VI	Title VI of the Civil Rights Act of 1964
TMA	Transportation management area
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
UPWP	Unified Planning Work Program
U.S.C.	United States Code
USDOT	United States Department of Transportation

Executive Summary

This Federal Highway Administration (FHWA) Environmental Justice (EJ) Reference Guide is a resource for FHWA staff to help them ensure compliance with EJ requirements. EJ at FHWA means identifying and addressing disproportionately high and adverse effects of the agency's programs, policies, and activities on minority¹ populations and low-income populations to achieve an equitable distribution of benefits and burdens. This also includes the full and fair participation by all potentially affected communities in the transportation decisionmaking process. **This document does not establish any new requirements or replace any existing guidance.** The FHWA EJ Workgroup, comprised of staff from different offices throughout the agency, collaboratively developed this reference guide.

The information in this document pertains to [Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations](#) (Executive Order 12898), the [U.S. Department of Transportation \(USDOT\) EJ Order 5610.2\(a\)](#), and the [FHWA EJ Order 6640.23A](#). Although this document is primarily intended to build FHWA capacity and knowledge on EJ, some of the information in the document will be most relevant for the day-to-day responsibilities of State and local partners. This is because FHWA primarily serves in an oversight and advisory role on EJ and the agencies that receive FHWA funds are the ones that will directly conduct the activities described in this document. FHWA staff can use this document as a resource when fielding questions from funding recipients, and they can use it as a reference when providing technical assistance or reviewing documents. This document is relevant to various FHWA disciplines, such as planning, environment and civil rights. Many of the concepts cross disciplines, so FHWA staff will benefit from reading all of the sections, including those outside of their respective disciplines. This document is also available online for the general public.

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

¹ The FHWA Order and USDOT Order define a “minority” individual as a person who identifies with one or more of the following categories: (1) Black: a person having origins in any of the black racial groups of Africa; (2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race; (3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent; (4) American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or (5) Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

In the context of transportation, effective and equitable decisionmaking depends on understanding and properly addressing the unique needs of different socio-economic groups. The *USDOT Order 5610.2(a)* requires the Department to consider EJ principles in all USDOT programs, policies, and activities. The [USDOT EJ Strategy](#) identifies three fundamental principles of EJ that guide USDOT actions:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decisionmaking process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

This reference guide begins with a brief history of EJ, an explanation of its relationship to Title VI of the Civil Rights Act of 1964 (Title VI), and a list of definitions. The document then presents techniques for conducting overarching activities related to EJ: data collection and analysis. By conducting these activities, FHWA funding recipients assess whether a proposed project, policy, or activity will have disproportionately high and adverse effects on minority or low-income populations.

The next sections of this document relate EJ principles to the phases of transportation project development: planning, environmental review, design, right-of-way (ROW), construction, and maintenance and operations. This includes a discussion of public involvement, another important overarching activity.

Subsequent sections of the document discuss strategies for incorporating EJ principles into various other aspects of transportation agencies' work, including: safety and consultations with the Governments of federally recognized Tribes. Next, the document describes the FHWA Title VI Program, which encompasses EJ and other nondiscrimination requirements. The final section describes other concepts relevant to EJ. Each section of the document includes a brief introduction, key questions, requirements relevant to EJ (if applicable), and recommended strategies for FHWA staff and partners to incorporate EJ principles.

Introduction

The Federal Highway Administration (FHWA) developed this document to provide FHWA staff a single reference to help them ensure compliance with environmental justice (EJ) requirements when developing and evaluating FHWA projects; engaging in transportation planning; developing or revising FHWA policies, guidance, and rulemakings; and creating and implementing FHWA programs. Although FHWA staff is the primary audience, the document is also available to State and local practitioners, and the general public. This document clarifies expectations, identifies best practices, and provides links to resources for incorporating EJ principles in FHWA-supported activities. The information in this document pertains to [Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations](#) (Executive Order 12898), which has roots in [Title VI of the Civil Rights Act of 1964](#) (Title VI), but is separate from the Title VI statute. **This document does not establish any new requirements or replace any existing guidance.**

Environmental justice is about identifying and addressing disproportionately high and adverse effects of proposed decisions on low-income populations and minority populations. When delivering transportation projects, however, practitioners should also seek equitable conditions for other protected categories—including race, color, national origin, sex, age, disability, and persons with limited English proficiency. FHWA employees, grantees, and recipients are responsible for understanding and implementing the principles of EJ in addition to other nondiscrimination requirements.²

Background

What is Environmental Justice?

Environmental justice at FHWA means identifying and addressing disproportionately high and adverse effects of the agency's programs, policies, and activities on minority and low-income populations to achieve an equitable distribution of benefits and burdens. This includes the full and fair participation by all potentially affected communities in the transportation decisionmaking process.

The concept of EJ emerged in the early 1980s, fueled by concerns that minority and low-income populations were experiencing more negative environmental effects when compared to other populations. In 1994, President Clinton issued [Executive Order 12898](#), which directed every Federal agency to make EJ a part of its mission.

Executive Order 12898 mandates that each Federal agency develop an agency-wide EJ strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. A Federal agency's EJ strategy must list programs, policies, planning, and participation processes that, at a minimum:

- Promote enforcement of all health and environmental authorities in areas with minority and low-income populations.

² See the appendix for a list of other protected categories.

- Ensure greater public participation.
- Improve research and data collection relating to the health and environment of minority and low-income populations.
- Identify differential patterns of consumption of natural resources among minority and low-income populations.

In addition to requiring Federal agencies to develop EJ strategies, Executive Order 12898 stipulated that the U.S. Environmental Protection Agency (EPA) would convene an Interagency Working Group on EJ (EJ IWG). The EJ IWG is comprised of members from 17 Federal agencies, including the U.S. Department of Transportation (USDOT), and several White House offices. Each member is tasked with guiding, supporting, and enhancing Federal EJ and community-based activities. In the memorandum transmitting Executive Order 12898, the President encouraged agencies to account for it in the implementation of Title VI, the National Environmental Policy Act of 1969 (NEPA), and public disclosure laws such as the Freedom of Information Act.

Although the nondiscrimination principles of Executive Order 12898 and the Title VI statute intersect, they are two separate mandates and each has unique requirements. Table 1 shows similarities and differences. Figure 1 also shows that the term “minority,” which is a protected category under EJ, overlaps with “race, color, and national origin (including individuals with limited English proficiency (LEP)),”³ which the Title VI statute protects. EJ principles, however, also apply to low-income populations, which are not covered under the Title VI statute.

Although the Title VI **statute** protects persons from discrimination solely on the basis of race, color, and national origin, Figure 2 shows that the FHWA Title VI **Program** includes other nondiscrimination statutes and authorities under its umbrella, including Executive Order 12898. FHWA’s Office of Civil Rights oversees the Title VI Program, which ensures that FHWA policies, programs, and activities do not discriminate based on race, color, national origin, income, sex, age, disability, or limited English proficiency. The Office of Civil Rights and the Office of Planning, Environment, and Realty share responsibility for overseeing the implementation of EJ.

³ Title VI protection also extends to individuals with limited English proficiency (LEP). The ruling in *Lau v. Nichols*, 414 U.S. 563, 568 (1974) determined that a failure to address LEP among beneficiary classes in the context of any federally assisted program or activity that provides services to the public could constitute discrimination.

EJ EXECUTIVE ORDER TITLE VI STATUTE

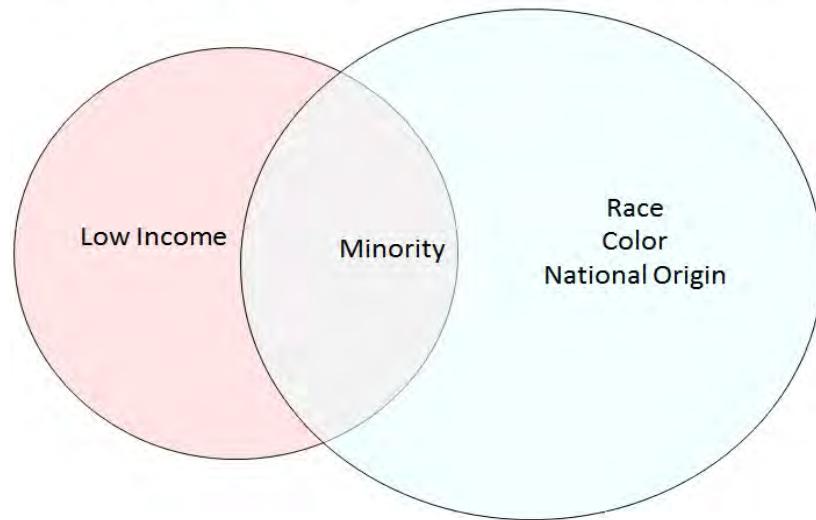


Figure 1. There is an overlap in the populations protected under the EJ executive order and the Title VI statute.

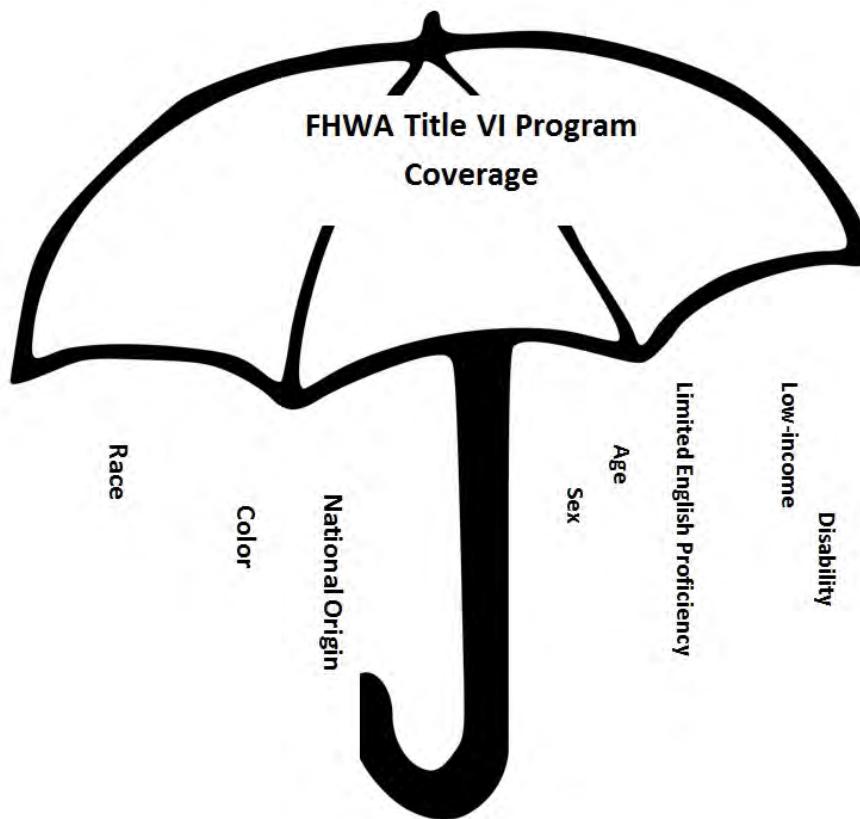


Figure 2. The FHWA Title VI Program is broader than the Title VI statute and encompasses other nondiscrimination statutes and authorities under its umbrella, including Executive Order 12898 on EJ.

Table 1. A comparison of EJ, the Title VI statute, and the FHWA Title VI Program

Area of Comparison	EJ	Title VI Statute	FHWA Title VI Program
Authorizing source	Executive Order 12898	Civil Rights Act of 1964	Title VI Program and Related Authorities: 23 CFR 200
Goal	Identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations	Prohibit discrimination on the basis of race, color, or national origin in programs receiving Federal assistance	Ensure that funding recipients comply with Title VI and related civil rights authorities
Protected classes	Minority and low-income populations	Race, color, and national origin	Race, color, national origin, sex, age, disability, low-income, and limited English proficiency
Covered actions	Federal programs, policies, and activities	All activities of recipients of Federal assistance	All activities of recipients of FHWA assistance
FHWA Lead Office	Office of Civil Rights and Office of Planning, Environment, and Realty	Office of Civil Rights	Office of Civil Rights
Entities responsible for implementation	FHWA offices and recipients of Federal assistance	FHWA offices and recipients of Federal assistance	FHWA offices and recipients of FHWA assistance
Provides authority for private parties to initiate a lawsuit	No. However, where an agency opts to examine EJ as part of its NEPA analysis, courts may review the EJ analysis under the Administrative Procedure Act.	Yes. However, there is only a private right of action in a lawsuit for claims of intentional discrimination and not disparate impact discrimination. Only the funding agency issuing the disparate impact regulation has the authority to challenge a recipient's actions under a disparate impact claim.	No

History of EJ

The roots of EJ trace back to the Civil Rights Act of 1964. The concept of EJ became more fully formed in the 1980s, following growing concern about the siting of waste and industrial facilities in minority and low-income communities. In 1992, responding to the growing attention on EJ, EPA established the Office of Environmental Equity, later renamed the Office of Environmental Justice. In 1993 the [National Environmental Justice Advisory Council](#) formed as a Federal advisory committee to EPA. Since then the Council has provided advice and recommendations to all stakeholders involved in the EJ dialogue.

Following issuance of Executive Order 12898 in 1994, USDOT and FHWA issued EJ Orders in 1997 and 1998, respectively, establishing EJ policies and procedures related to their activities. In 2000, President Clinton signed [Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency](#). This Order directs Federal agencies and recipients of Federal funds to improve access to services for persons who do not speak English as their primary language and have limited ability to read, speak, write, or understand English. This Order references Title VI and is also relevant to EJ because some minorities may not speak English as a first language.

In August 2011, Federal agencies signed a [Memorandum of Understanding on Environmental Justice and Executive Order 12898](#) (EJ MOU), reinforcing and reinvigorating the Federal Government's commitment to EJ. The new EJ MOU required agencies to revise their EJ strategies, as appropriate, and to publicize the revisions. Pursuant to this development, the U.S. Department of Transportation (USDOT) developed a [new EJ Strategy](#) and a [revised EJ Order](#) in 2012, and the operating administrations developed compatible guidance. EPA manages a [list](#) of new or revised strategies for EJ published by USDOT and other members of the EJ Interagency Working Group (IWG).

In June 2013 President Obama released [The President's Climate Action Plan](#), which states that through the use of annual Federal agency "Environmental Justice Reports," the Administration will continue to identify innovative ways to help the Nation's most vulnerable communities to prepare for and recover from the impacts of climate change. In conjunction with the President's plan, the 2014 Intergovernmental Panel on Climate Change [Fifth Assessment Report](#) indicates that low-income populations and minority populations may be vulnerable to climate change impacts.

FHWA Commitment to EJ and Nondiscrimination

FHWA considers EJ in all phases of project development including: planning, environmental review, design, right-of-way, construction, and maintenance and operations. Figure 3 shows these phases of project development. FHWA also considers EJ in all other programs and activities, such as public involvement, freight planning, safety measures, Tribal consultation, and the Title VI civil rights program.

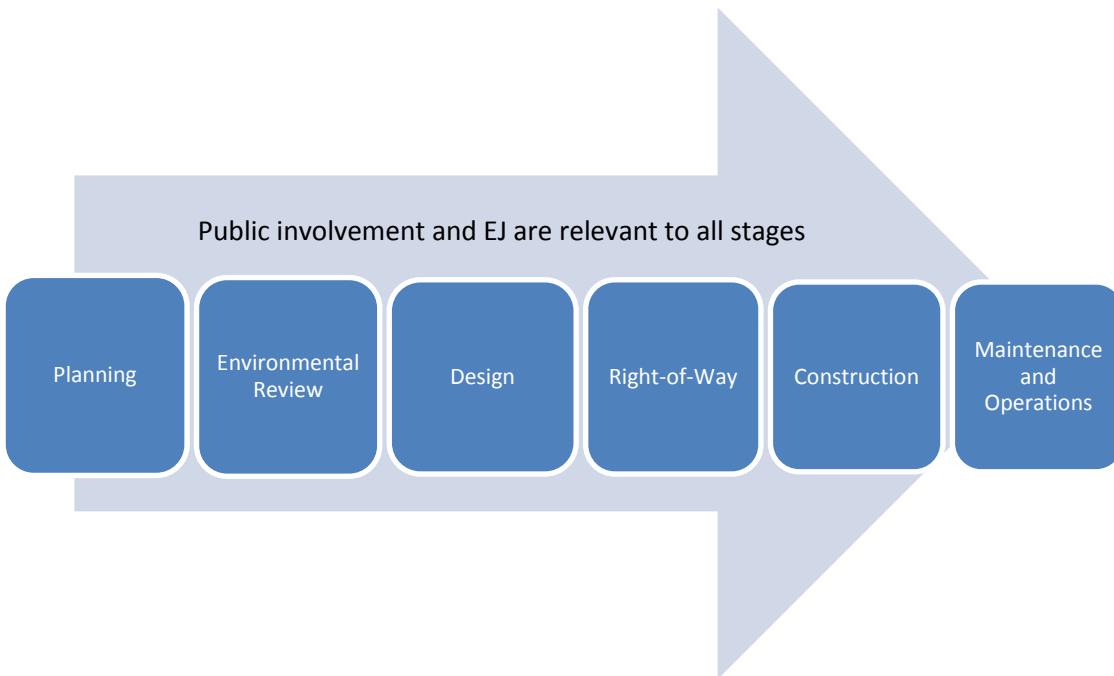


Figure 3. FHWA considers EJ in all stages of project development.

FHWA has been committed to identifying and involving underserved communities through its policies for decades. In 1996, the agency developed [Community Impact Assessment: A Quick Reference for Transportation](#), which describes the process for evaluating the effects of a transportation action on a community and its quality of life. The document is a useful guide for many NEPA activities, including EJ. FHWA published [Transportation and Environmental Justice Case Studies](#) in 2000. This series of 10 case studies profiles how various transportation agencies have integrated EJ considerations into their transportation planning decisions. In 2006, the agency published [How to Engage Low-Literacy and Limited-English-Proficiency Populations in Transportation Decisionmaking](#), which documents “best practices” in identifying low-literacy and LEP populations, and affording them opportunities to participate in transportation decisions. In 2009, FHWA published [A Guide to Transportation Decisionmaking](#) to help the public better understand and participate in transportation processes.

The agency has continued this commitment in recent years, and on June 14, 2012, signed [FHWA EJ Order 6640.23A](#), a directive that replaced the previous EJ order from 1998. *FHWA EJ Order 6640.23A* explains the agency’s policy concerning EJ and describes how EJ principles should relate to FHWA operations. FHWA maintains a variety of EJ resources for the public. The [EJ website](#) contains case studies, such as a 2011 [document on emerging trends and best practices](#) and a 2012 series on [EJ and NEPA](#), as well as training information and additional resources. The [Human Environment Digest](#), a free weekly email subscription service that summarizes new resources regarding transportation and its relationship to the human environment, also contains EJ information; including, EJ-related conferences, workshops, and symposia. For information on current FHWA EJ activities, refer to the annual [EJ implementation report](#) for USDOT.

The FHWA EJ Order 6640.23A is the principle guidance on EJ within the agency, but other requirements relate to and support EJ. These include the following:

- [Title 23 United States Code \(U.S.C.\) 109\(h\)](#) states that final decisions on Federal-aid projects should be made in the best overall public interest and eliminate or minimize adverse effects. Community Impact Assessment, an iterative process used to evaluate the effects of transportation actions on a community and its quality of life over time, helps practitioners (including FHWA funding recipients and sub-recipients) comply with this requirement.
- [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 \(Uniform Act\)](#) and the Surface Transportation and Uniform Relocation Assistance Act of 1987 outline requirements for property acquisition.
- Planning statutes (23 U.S.C. 134 and 135) and planning regulations ([23 Code of Federal Regulations \(CFR\) 450](#)) are relevant to EJ because they outline requirements for public involvement and other planning processes.
- FHWA NEPA regulations ([23 CFR 771](#)) are relevant to EJ as they outline requirements for assessing impacts, involving the public, and other aspects of environmental review.
- [Executive Order 13166](#) on limited English proficiency (LEP) is relevant to EJ because some minorities may not be proficient in English. The U.S. Department of Justice (DOJ) issued [guidance](#) for agencies to follow in making Federal activities and programs meaningfully accessible to LEP individuals. DOJ guidance suggests a four-factor approach to LEP analysis.

FHWA has an internal EJ Implementation Workgroup that meets several times each year to do the following:

- Build awareness within FHWA of EJ implementation activities.
- Enhance EJ collaboration within FHWA and with other Federal agencies and Tribes.
- Improve practitioner understanding and implementation of EJ policies and principles by developing tools, such as this document.

Definitions

Origins of Definitions

Congress established the Council on Environmental Quality (CEQ) within the Executive Office of the President as part of the National Environmental Policy Act of 1969 (NEPA). The CEQ, which coordinates Federal environmental efforts by working with other Federal agencies to develop environmental policies and initiatives, has since published [guidance](#) for Federal agencies on EJ definitions and measures. The U.S. Department of Transportation (USDOT) and the Federal Highway Administration (FHWA) definitions are based on CEQ guidance, except where specified below.

Definitions

Adverse effect – The FHWA and USDOT EJ Orders state that “adverse effects” means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of human-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community’s economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community; and, the denial of, reduction in, or significant delay in the receipt of benefits of FHWA/DOT programs, policies, or activities.

Disproportionately high and adverse – The FHWA and USDOT EJ Orders state that “disproportionately high and adverse” refers to a adverse effect that (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population. When considering whether an effect is “disproportionately high and adverse,” practitioners should include the community that may be affected in that discussion. For more information on analyzing disproportionately high and adverse effects, please refer to page 13 of this document.

Low-income –The FHWA and USDOT EJ Orders define a “low-income” individual as a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. This differs from CEQ guidance on EJ, which suggests the use of U.S. Census Bureau poverty thresholds. The [HHS website](#) outlines key differences between HHS guidelines and Census guidelines. For more information, please refer to the “Identifying Populations” section on page 14 of this document.

Minority – The FHWA and USDOT EJ Orders define a “minority” individual as a person who is: (1) Black: a person having origins in any of the black racial groups of Africa; (2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race; (3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent; (4) American Indian and Alaskan Native: a person having

origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through Tribal affiliation or community recognition; or (5) Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.⁴

Populations – For the terms “minority” and “low-income,” the FHWA and USDOT EJ Orders define a “population” as any readily identifiable group of minority and/or low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons of those groups (such as migrant workers, homeless persons, or Native Americans) who will be similarly affected by a proposed FHWA/DOT program, policy, or activity.

Practitioner – In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Underserved population – In this document, the term “underserved population” or “traditionally underserved population” refers to a broad category that includes minority and low-income populations but may also include many other demographic categories that face challenges engaging with the transportation process and reaping equitable benefits, such as children, the elderly, and the disabled.

⁴ USDOT added the fifth category, Native Hawaiian and Other Pacific Islander, in 2012 after FHWA, the Federal Transit Administration (FTA), and the Office of Management and Budget (OMB) reached a consensus.

Data Collection and Analysis

Introduction

This section presents information for conducting an environmental justice (EJ) analysis, including data collection and interpretation. EJ analyses determine whether a proposed project, policy, or activity will have disproportionately high and adverse human health or environmental effects on minority populations or low-income populations. Practitioners should collect information before making a determination, and both data collection and public involvement are necessary to conduct a complete EJ analysis. Every analysis will be customized to the context and project, including the order in which data are collected, the quality and quantity of the data, the scale of analysis, the level of effort expended, and the level of certainty with respect to the conclusions. The project phase is one factor that will influence many of these areas related to EJ analysis. Data collection should be an iterative process to capture the demographic and socio-economic changes that naturally occur in communities over time, and Federal Highway Administration (FHWA) funding recipients should incorporate data collection, analysis, and public involvement throughout project development. Figure 4 diagrams an approach to EJ analysis.

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions to Consider for Data Collection and Analysis

FHWA staff should consider the following key questions related to data collection and analysis. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have practitioners collected recent data on race, color, national origin, limited English proficiency (LEP), and income? Have they overlaid these data with transportation data to consider the relationships between them?
- Are the geographic boundaries for analysis reasonable and logical?
- Does the program, policy, or activity create an adverse effect in the short-, medium-, or long-term that is predominately borne by minority and/or low-income individuals or is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the general population?
- Have practitioners solicited input from potentially impacted minority and low-income populations and integrated that into the analysis?
- Have practitioners provided documentation to support and explain their decisionmaking?

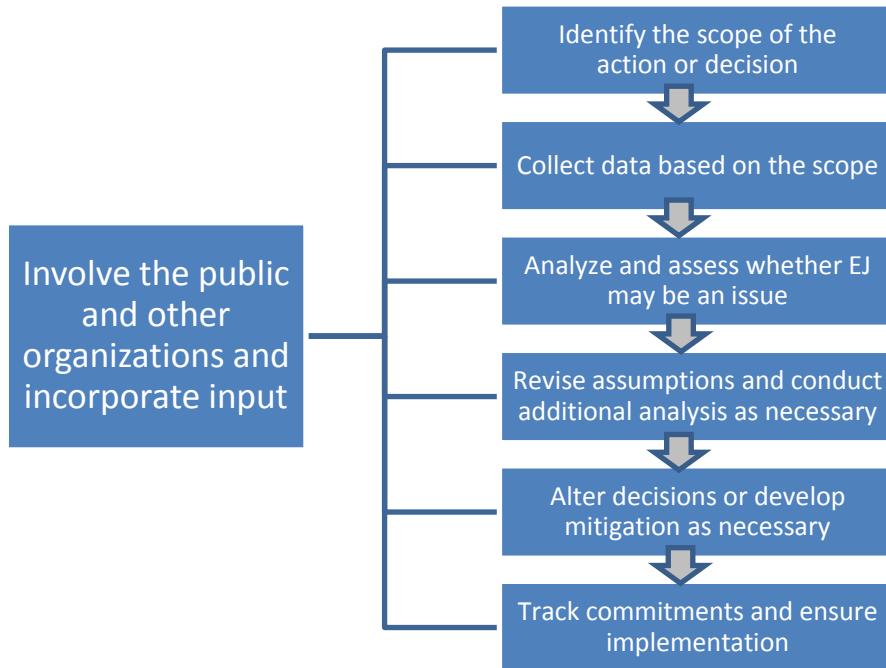


Figure 4. A diagram outlining an approach to EJ analysis. Public involvement and input should inform all steps of the analysis. The steps on the right side should proceed in order, from the top to the bottom, but EJ analysis is an iterative process, so practitioners may need to repeat some or all of the steps as new information becomes available.

Framing EJ Analysis

Identifying “Disproportionately High and Adverse Effects”

The FHWA and USDOT EJ Orders state that “disproportionately high and adverse” refers to an adverse effect that (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

“Disproportionately high and adverse” effects may only impact a few people. Practitioners should collect as much information as necessary from relevant sources to make informed decisions. When considering whether effects are “disproportionately high and adverse,” practitioners should seek input from the communities that may be impacted.

Projects cause positive and negative effects, or “benefits and burdens,” which may occur in the short, medium, or long term. A comprehensive analysis will include consideration of all of these factors as well as the cumulative effect of a decision in combination with past actions and all other reasonably foreseeable future actions. In determining whether an effect is “disproportionately high and adverse,” the USDOT EJ Order notes that practitioners may take the following into account: planned mitigation measures, offsetting benefits to the affected minority and low-income populations, the design, the comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas.

If, in consultation with affected populations, the responsible practitioners determine that a decision will have a “disproportionately high and adverse effect” on minority populations or low-income populations, it may only be carried out if further mitigation measures or alternatives that would avoid, minimize, or mitigate the disproportionately high and adverse effect are not practicable. In determining whether a mitigation measure or an alternative is “practicable,” practitioners should consider the social, economic (including costs), and environmental effects of avoiding or mitigating the adverse effects. If there is no way to reduce the effects so that they are no longer disproportionately high and adverse and the affected population is a minority population protected under Title VI, FHWA will not approve the project unless: a substantial need for the program, policy, or activity exists, based on the overall public interest and alternatives that would have less adverse effects on protected populations (and that still satisfy the project need), either would have other adverse social, economic, environmental or human health impacts that are severe or would involve increased costs of extraordinary magnitude.⁵

Practitioners should consider potential imbalances in both the benefits and burdens of transportation projects on EJ populations. Some examples include:

Potential Burdens:

- Disruption of community cohesion (e.g., access to schools, parks, medical facilities, and religious institutions)
- Adverse employment effects
- Decline in tax base or property values
- displacements
- Increased noise and/or emissions
- Diminished aesthetics
- Disruption to businesses
- Parking/access to transit

Potential Benefits:

- Reduced travel times
- Reduced congestion
- Improved safety outcomes
- Improved travel options

Identifying Populations

Practitioners should consider whether EJ persons or populations exist on a case-by-case basis – depending on the context, this may mean one person, multiple families, or entire communities.

For example, in planning analyses it may be sufficient to identify populations at the Census-tract level. In project analyses practitioners should go beyond this first level to identify minority and low-income persons or populations at a more detailed level using multiple sources of information.

Practitioners would generally only identify individual persons or households as information becomes available regarding the likelihood, severity, location, and extent of impacts. For example, in the project development phase, practitioners may identify local impacts such as relocation, noise, or vibrations.

⁵ [FHWA Guidance on EJ and NEPA \(2011\)](#)

Agencies may make their own determinations and assumptions to identify persons or populations and then document their assumptions in planning and environmental documents.

For the purposes of EJ, FHWA defines low-income persons as those whose household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. A State or locality may adopt a more inclusive threshold for low-income than that specified by HHS as long as it is inclusive of all persons at or below the HHS poverty guidelines. The HHS updates the poverty guidelines annually, and the most current version is on the [HHS website](#). The [Uniform Act](#) supersedes this guidance for relocations; in those cases practitioners should use U.S. Department of Housing and Urban Development (HUD) definitions for low-income. For more detail please refer to the “EJ in Right-of-Way” section on page 51.

Example: Identifying Populations at the Project Level

Though Census data is a useful tool for identifying communities, it cannot reveal the intricate relationships that exist between community members. The following case study describes a situation where further analysis during the environmental review phase revealed important information not apparent from Census data.

An agency planned to widen a roadway, which would require relocating households within a community. Once the process for determining relocations began, practitioners realized that a cluster of homes were interconnected—various members of the same family lived in different homes on the same block and relied on one another for economic and social support. The elderly, low-income parents lived in one home and were dependent on their children and grandchildren who lived in a different home nearby. Relocating one household without the other household may have created an adverse effect. Realizing this, the practitioners investigated alternatives and assessed whether the adverse effect would be disproportionately high.

Data Collection

As listed in step one of Figure 4 on page 13, practitioners should begin an EJ analysis by identifying the scope of the action based on the identified purpose and need. After determining this, practitioners can begin to collect demographic and socio-economic information for the affected community and surrounding communities. For the purposes of EJ, practitioners should collect data (at a minimum) on minority and income populations. Practitioners should also consider collecting additional data on Tribal Governments, seasonal and migrant workers, and homeless persons.

Sources of Data

Practitioners can use the following list of resources to gather baseline data. Practitioners should also consider gathering data directly from local organizations. The resources that follow are only intended to provide an initial list to consider. Data sources appear in the following categories, according to the types of information that they can provide:

- Data on population characteristics (e.g., socio-economic data on residents, daytime population, and population flows).
- Data on transportation networks and accessibility.
- Composite tools that combine other data sources to calculate values.

- Other sources for economic and social history data.

Data on Population Characteristics

U.S. Census Bureau Resources – The U.S. Census Bureau provides a number of resources with data at the Census-tract, Census-block, and block-group levels. Practitioners may decide which level of data to use based on the context (see “Analysis and Interpretation of Data” section on page 20), documenting any assumptions. The Decennial Census of Population (Census) provides demographic data in categories such as age, race, color, and national origin; and economic data in categories such as employment, unemployment, home ownership, and renting.

American Community Survey (ACS) – The U.S. Census Bureau conducts the ACS continuously and tabulates the data for Census tracts and block groups after each 5 years (60 months) of survey accumulation. In addition to race and Hispanic origin, the ACS includes variables such as income and poverty, English-speaking proficiency, and country of origin as well as journey-to-work data (including travel times, distances traveled, and means of transportation). Journey-to-work information can help practitioners understand whether low-income and minority communities have longer commute times and/or farther distances to travel to access goods and services as compared to neighboring communities.

Census Transportation Planning Products – The American Association of State Highway and Transportation Officials sponsors this set of special tabulations. It uses data from the ACS to provide information for transportation planners. This key resource provides data not commonly available in other data sets, such as information on the characteristics of workers (e.g., race and income) at their work locations as well as at their residences. It also provides information on commuters, linking origins and destinations. For example, practitioners can view the income status of the people that live in one community and commute to work in another community. A variety of CTPP tables are relevant to EJ, such as “Minority Status by Mode to Work.” The full CTPP table list is [available online](#).

ACS Public Use Microdata Sample – These files show the full range of population and housing unit responses collected on ACS questionnaires, including population and housing unit records with response information such as relationship, sex, educational attainment, and employment status. With microdata,⁶ the user determines the organization structure and the information to be analyzed. The sample only contain data for Public Use Microdata Areas, which each have a population over 100,000. A map of these areas is available in the [reference maps](#) section of the Census website.

U.S. Census Explorer – This is an interactive, online mapping interface that allows users to view Census data in a variety of ways. This does not require the use of geographic information system (GIS) software. The interface is accessible through any web browser and is available to the public. Figure 5 and Figure 6 show several ways of representing data with Census Explorer.

⁶ Microdata describe the characteristics of units of a population, such as individuals, households, or establishments, collected by a census, survey, or experiment.

Currently, Census Explorer contains data in several areas relevant to EJ and nondiscrimination, such as median household income. The Census Bureau is working to include additional data layers that may be relevant to EJ.

[U.S. Economic Census](#) – The Economic Census profiles the U.S. economy every 5 years, from the national to the local level. This site provides reports that are now available for all geographic areas and all sectors.

[Community Analyst](#) – This GIS software package (or other similar commercial products) can help practitioners map and understand the types of people impacted by a policy decision. The program is also available as a web application, which does not require the user to install software. Practitioners must pay a fee to use this application. FHWA does not endorse this (or any other proprietary software).

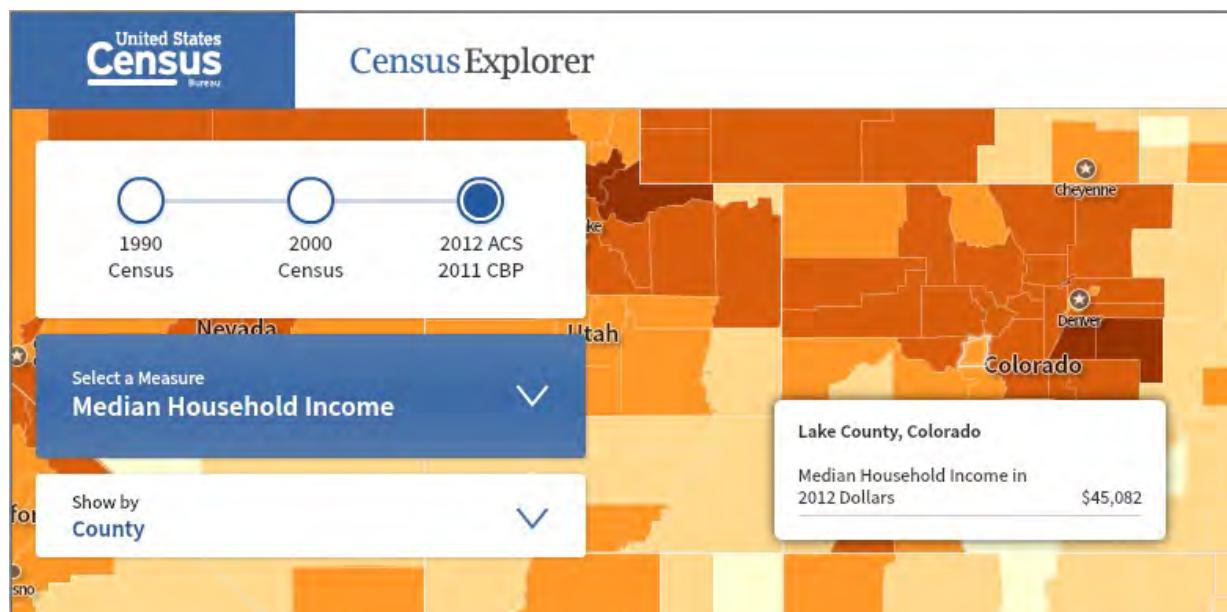


Figure 5. Practitioners can use the web-based Census Explorer to represent Census data geographically without the need for GIS software.

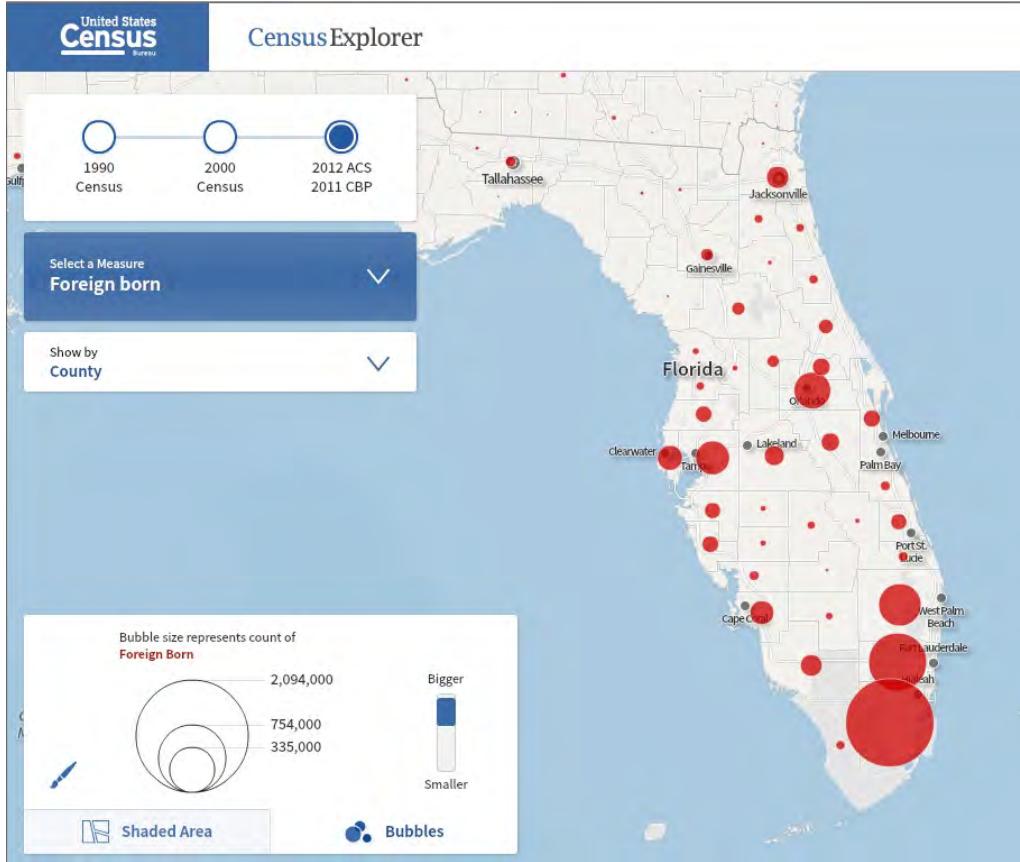


Figure 6. The web-based Census Explorer allows practitioners to represent Census data in several graphic formats.

FHWA National Household Travel Survey (NHTS) – The NHTS is a national survey of about 25,000 households, conducted every 5 to 7 years. The most recent NHTS was conducted in 2008-2009, and the next survey is planned for 2015-2016. Due to the small sample size, it does not have small area (Census tract or block group) reporting, but it does provide information by race, Hispanic origin, age, and gender. It includes all trip purposes, not just commuting. Practitioners often use NHTS to estimate or model travel for small geographies. For example the [NHTS transferability statistics](#) estimate total travel at the Census-tract level by combining NHTS data with Decennial Census and ACS data. Practitioners can also opt to purchase additional samples as part of the NHTS, which can help to develop more detailed travel estimates on smaller scales.

Travel Surveys – State DOTs, MPOs, and transit operators may also conduct their own travel surveys. For information on travel surveys, please visit the [Travel Survey Manual](#), which includes many examples of recent requests for proposals. Agencies may conduct special surveys to gain input from low-income and minority communities.

Bureau of Labor Statistics – The Bureau of Labor Statistics is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics. This agency can provide information on inflation, prices, employment, unemployment, pay and benefits, spending, use of time, productivity, workplace injuries, and regional resources. The Bureau of Labor Statistics has two monthly

surveys that measure employment levels and trends: the Current Population Survey, also known as the household survey, and the Current Employment Statistics survey.

School Data – Children at a participating school may purchase a meal through the [National School Lunch Program](#) administered by the U.S. Department of Agriculture. Children from families with incomes at or below 130 percent of the poverty level are eligible for free meals. Those between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals. Practitioners can find the number of students who qualify for free and reduced-price meals at every public school in the U.S. by using the National Center for Education Statistics' [Search for Public Schools](#) website. The website also lists students' race and schools' Title I status. Title I schools receive grants for activities to meet the educational needs of minority and disadvantaged students. The National Center for Education Statistics also manages the [School District Demographics System](#), an interactive GIS tool that shows socio-economic information and Title I status by school district. Practitioners can use this information to identify potential impacts on low-income and minority children that may not be apparent from Census data.

Data on Transportation Networks and Accessibility

[U.S. Census TIGER/Line Files](#) – Practitioners can use Topologically Integrated Geographic Encoding and Referencing (TIGER) system files with mapping software to represent Census data geographically and examine spatial patterns. The files may be particularly useful for examining transportation networks.

[U.S. Bureau of Transportation Statistics](#) – The Bureau of Transportation Statistics holds archived data on their website, such as 1990 and 2000 data from the CTPP. The Bureau also provides practitioners with data on transportation networks.

[General Transit Feed Specification](#) – The General Transit Feed Specification defines a common format for public transportation schedules and associated geographic information. It allows public transit agencies to publish their transit data and enables developers to write applications that consume that data in an interoperable way. FHWA does not endorse this product (or any other proprietary platform).

Composite Tools

[Location Affordability Index](#) – This Government tool estimates the percentage of a family's income dedicated to the combined cost of housing and transportation at a given location. Individuals can customize their household profile by entering household income, household size, and the number of commuters. Practitioners can also use this tool in planning to consider potential effects on low-income communities.

[EPA Smart Location Mapping Tools](#) – The Environmental Protection Agency (EPA) developed two data products that consistently measure the built environment and transit accessibility of neighborhoods across metropolitan regions in the United States. Each of these products summarizes the characteristics of Census-block groups. Users can download data, browse the data in interactive maps, or access the data through web services. The [Smart Location Database](#) summarizes indicators associated with the built environment and location efficiency. Indicators include density of development, diversity of land use, street network design, and accessibility to destinations as well as various demographic and employment statistics. Most attributes are available for all U.S. Census block groups. The [Access to Jobs and Workers Via Transit Tool](#) provides indicators of accessibility to destinations by public transit. It

summarizes jobs accessible by transit as well as workers, households, and populations that can access a given Census block group via transit. Coverage is limited to metropolitan regions served by transit agencies that share their service data.

EPA EnviroAtlas – EnviroAtlas is a collection of interactive tools and resources that allows users to explore the many benefits people receive from nature, often referred to as ecosystem services. EnviroAtlas seeks to measure and communicate the type, quality, and extent of the goods and services that humans receive from nature so that users can consider their value in decisionmaking processes. Using EnviroAtlas, users can access, view, and analyze diverse information to better understand how various decisions can affect an array of ecological and human health outcomes.

EPA EJView (2013) – This is an interactive mapping tool with demographic, health, environmental, and facility-level data. It allows users to create maps and generate detailed reports based on selected geographic areas and data sets.

Digital Coast Sea Level Rise Viewer – The National Oceanic and Atmospheric Administration developed this geospatial tool that shows areas of high human vulnerability to hazards based on the built environment and population attributes, such as age and income. This tool may help practitioners to understand where underserved populations may be particularly vulnerable to natural hazards as a result of sea level rise. The tool is limited to coastal areas and does not include inland areas.

Other Sources for Economic and Social History Data

The resources listed above should offer a starting point for gathering the data needed to conduct a successful EJ analysis. However, many additional resources provide economic and social history data. These resources include, but are not limited to, the following: State, regional, and local planning organizations; State employment agencies; labor departments; tax and financing agencies; social service agencies; health organizations; economic development organizations; school districts; local chambers of commerce; housing authorities; and local historical/cultural societies.

Frequency of Data Collection

The appropriate frequency for data collection will vary based on context. In a rapidly evolving area, practitioners may need to collect data more frequently as compared to an area where demographics are changing more slowly. Practitioners should use judgment and document all assumptions.

Analysis and Interpretation of Data

After collecting the necessary data, practitioners need to carefully analyze the data to determine whether the transportation benefits and burdens are equitably distributed and whether low-income and minority populations in the study area will experience disproportionately high and adverse effects as a result of the proposed program, policy, or activity. The following section describes some potential methods for analysis.

Tools and Techniques for Analysis

Below is a list of recommended techniques and tools for analysis. Additional resources can be found in National Cooperative Highway Research Program (NCHRP) [Report 710: Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking](#).

Social and Economic Profiles – Determining an area’s social and economic profile is an important first step for EJ analyses. A number of resources could help practitioners develop such an assessment, including the following:

- [Community Impact Assessments](#)
- [NCHRP Report 710: Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking](#)
- [NCHRP Report 532: Effective Methods for Environmental Justice Assessment](#)

Geographic Information Systems (GIS) – Practitioners can portray and analyze data by using a GIS software platform. The data overlay and mapping capabilities of GIS are useful tools for identifying patterns in transportation activities and their spatial relationship to minority and low-income populations. GIS can help practitioners to predict how different populations may be affected by a plan or project. Practitioners can also use GIS to inform outreach strategies based on the locations of various populations.

Community Attribute Index – A community attribute index is a method for combining multiple characteristics of affected communities (access to healthy food, level of ambient noise, etc.) into one index of general well-being; this can help to inform an equity analysis of benefits and burdens. This approach shows where communities already have a relatively high or low standard of living (lack of access to healthy food choices, high noise levels, etc.).

Community Characteristics Inventory – A community characteristics inventory is an interactive, web-based GIS system for generating customized demographic reports for a community. Such an inventory would include data related to the natural and human environment for a place or various places. The tool enables information retrieval on a project-specific basis and is designed for planners, project managers, and the general public. A community characteristics inventory can assist with tailoring public outreach, developing alternative scenarios, and directing investment to low-income and socially disadvantaged populations.

Example: Developing a Community Characteristics Inventory

The [Space Coast TPO](#) in Florida developed a community characteristics inventory that included the following GIS layers and a number of additional ones. Other agencies may choose to include these and/or additional layers depending on the situation:

- **Basic services** – Schools, medical facilities, law enforcement, fire stations, and other social services.
- **Activity centers** – Major employers, shopping centers, cultural centers, parks, and others.
- **Transportation disadvantaged populations** – Individuals who are unable to provide their own transportation or have difficulty accessing public transportation, including layers such as age groups “under 18” and “over 65,” low-income households, areas of high unemployment, and households with no car.
- **Propensity to walk analysis** – A calculated layer combining proximity to public schools, parks, transit, shopping, and major employers; dwelling unit density; employment density; areas with a high percentage of population “under 18” and “over 65”; and areas with many transportation disadvantaged persons.
- **Population concentration/transit accessibility** – A layer that shows the location of high density residential areas in relation to fixed bus route lines.
- **Paths to schools analysis** – A layer that measures the miles of walking paths within a half mile radius of each public school and also shows neighborhoods which are not within a half mile of any schools.

Defining Boundaries for Analysis

The geographic boundaries for analysis will need to vary depending upon the nature of the proposed action or plan. Practitioners should establish the study area boundaries carefully so as not to artificially distort the representation of minority and low-income individuals in the affected population.

Practitioners should also revise the boundaries if subsequent data collection and public involvement demonstrate a need. FHWA funding recipients should work closely with their FHWA Division Office to establish appropriate units of geographic analysis. The following example illustrates the approach that one State took to delineate geographic boundaries and then adjust them based on new information.

Example: Using Community Input to Revise Boundaries for Analysis

Defining boundaries for rural projects can be challenging since rural Census-block groups tend to be large and development within Census-block groups can be sparse. Practitioners in one rural State used a combination of topographic maps, aerial imagery, and U.S. Census data to locate residential developments in a project area in preparation for a community impact assessment. Practitioners then visited the mapped locations to verify assumptions and surveyed residents to ask for input in defining community boundaries. Based on the field visits and input from residents, the practitioners revised the original boundaries for analysis.

To get input from traditionally underserved populations, practitioners used a variety of strategies to target each population, such as distributing survey packets at elementary schools, where students were asked to take the surveys to their parents, and contacting local ministers to survey their congregations. Where response rates were low, practitioners mailed additional surveys to certain postal routes and conducted interviews.

Resources

For additional resources on data collection and analysis, see [NCHRP Report 532: Effective Methods for EJ Assessment](#), or contact the [FHWA Resource Center](#) for information on their “Benefits and Burdens” course.

EJ in Project Development

The sections that follow describe how environmental justice (EJ) intersects with the various stages of the transportation project development process. The phases of project development include planning, environmental review, design, right-of-way, construction, and maintenance and operations. Some of these stages (e.g., environmental review and preliminary design) occur concurrently and may overlap; however, Figure 8 shows the basic process in its most common form. Subsequent sections explain how EJ relates to each of these processes.

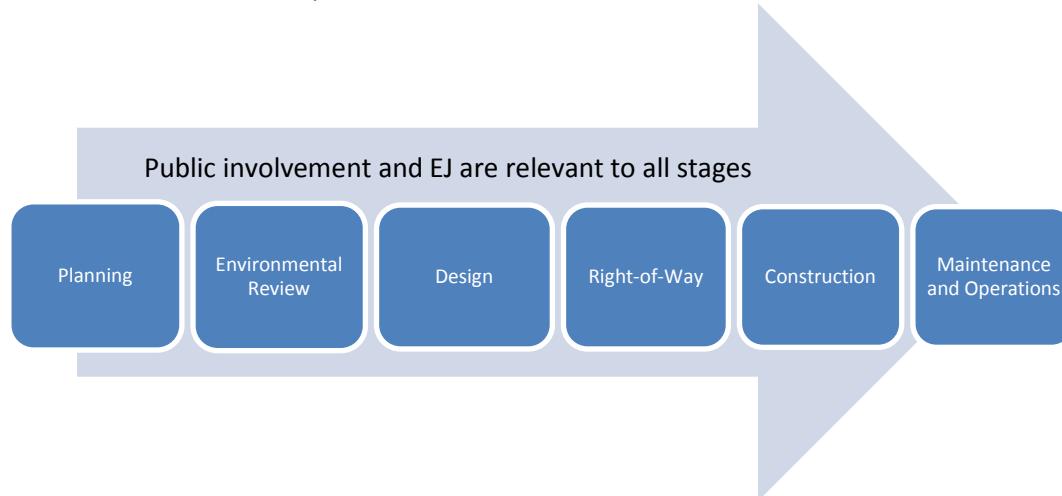


Figure 7. Stages of transportation project development.

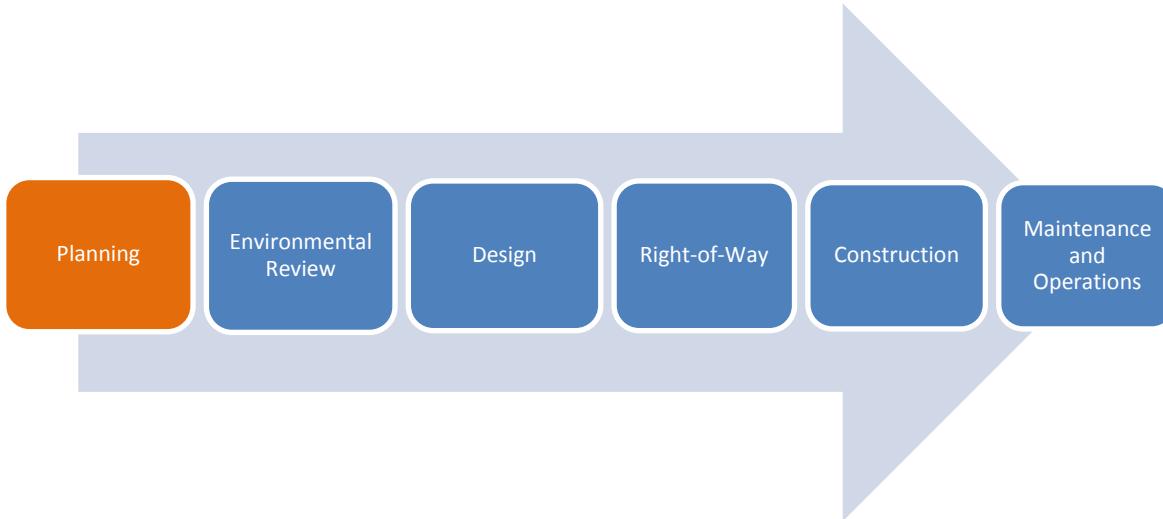
PlanWorks: A Resource for Decisionmaking

PlanWorks is a web resource that supports collaborative decisionmaking in transportation planning and project development. PlanWorks is built around 44 key decision points in long-range planning, programming, corridor planning, and environmental review. PlanWorks suggests when and how to involve cross-disciplinary partners and stakeholder groups.

Practitioners can use the Decision Guide in PlanWorks to troubleshoot issues and identify opportunities for cooperation in transportation planning and environmental review. For each of the key decision points, PlanWorks provides policy and stakeholder questions, data needs, case studies and examples, and links to tools that can help support decisions. The Decision Guide recommends EJ considerations at various decisions points.

PlanWorks will be available in 2015 and the FHWA EJ website will link to it when it is available. The beta version of PlanWorks (the beta version was known as *Transportation for Communities - Advancing Projects through Partnerships* or TCAPP) is currently available at:
<https://fhwapps.fhwa.dot.gov/planworks/default.aspx>.

EJ in Planning



Introduction

This chapter addresses environmental justice (EJ) considerations in the transportation planning process. Identifying EJ issues during planning allows practitioners to identify issues early and consider alternatives. The Federal Highway Administration (FHWA) recommends that planners also consider linkages with the environmental review process at the beginning and throughout the planning process.

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions to Consider for EJ in Planning

FHWA staff should consider the following key questions related to EJ in planning. These questions are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Do planning documents include the required EJ elements where applicable?
- Do practitioners consider links with the environmental review process at the beginning and throughout the planning process?
- Do practitioners solicit input from the public, including minority and low-income populations, in developing performance measures?
- Do practitioners document considerations for minority and low-income populations?
- Do State departments of transportation (DOTs) and metropolitan planning organizations

(MPOs) include EJ considerations in project prioritization?

- Do State DOTs and MPOs involve low-income and minority communities when developing statewide long-range transportation plans (SLRTPs) and metropolitan transportation plans (MTPs)?
- Do SLRTPs and MTPs include an evaluation of potential system-level EJ impacts?
- Have State DOTs and MPOs considered EJ in planning for asset management?

Responsibilities for FHWA Division Offices

FHWA is responsible for working with recipients of FHWA funds, such as State DOTs and MPOs, to ensure that planning processes incorporate EJ, as appropriate. If FHWA planners find that elements of a planning process lack consistency with the principles outlined in Executive Order (EO) 12898, they are responsible for noting the deficiencies. FHWA planners can collaborate with FHWA Division Office civil rights specialists, who *may be able to* recommend methods for resolving the issue(s). Division Office planners should use the following strategies and processes to ensure EJ compliance:

- Identify effective practices and resources to promote the integration of EJ into all planning activities.
- Build and maintain relationships with State DOTs and MPOs to stay informed and help proactively address any EJ issues.
- Perform reviews of EJ as part of all approvals, including Federal planning findings, State DOT and MPO self-certifications, and transportation management area (TMA) [certification reviews](#).

FHWA Division Office planners should check to see whether planning documents analyze and address EJ considerations. This is often on the regional level and not on a project-by-project basis. Division Office planners should *review EJ analyses for compliance with the FHWA EJ Order and suggest that they:*

- Include a demographic profile that uses current sources to locate minority and low-income populations and other protected groups in the planning area.
- Document public involvement activities, levels of participation, and issues that the public raised.
- Use analytical processes, for example geographic information systems (GIS) and mapping.
- Demonstrate how plans, programs, and projects can avoid or minimize any imbalances if disproportionately high and adverse effects become apparent.

Coordination with the Federal Transit Administration

Because many planning documents and processes require joint review from FHWA and the Federal Transit Administration (FTA), Division Office planners should coordinate with FTA regional staff to ensure that recipients meet the EJ requirements of both agencies. The agencies' approaches are similar, since FHWA and FTA are both governed by [joint planning regulations](#) and the [TMA planning certification process](#). However, coordination is important because they each have different EJ policies that respond to the uniqueness of their programs. The [FTA EJ Circular 4703.1](#) provides information specific to transit. FHWA and FTA are jointly responsible for providing oversight of the transportation planning process,

including TMA certification reviews, the statewide planning finding, and planning documents such as the statewide long-range transportation plan (SLRTP), metropolitan transportation plan (MTP), statewide transportation improvement program (STIP), transportation improvement program (TIP), unified planning work program (UPWP), and participation plan.

Responsibilities for Recipients of Federal Funds

Agencies that receive Federal funding – such as MPOs, State DOTs, and public transit operators – are responsible for involving traditionally underserved and underrepresented populations in transportation planning, and complying with relevant Federal agency guidance.⁷ For multimodal transportation projects, State and MPOs should refer to FHWA guidance as well as the [FTA EJ Circular 4703.1](#). Federal funding recipients can incorporate EJ into their planning activities through a variety of ways, but some common methods include:

- Developing EJ procedures, goals, and performance measures relating to the agency's mission.
- Enhancing public involvement activities to ensure the meaningful participation of minority and low-income populations.
- Analyzing and documenting how policies, processes, and planning products impact minority and low-income populations.

The remainder of this section discusses EJ considerations for specific planning documents.

Statewide Long-range Transportation Plan/Metropolitan Transportation Plan

Each State DOT and MPO must develop a long-range plan that describes the development and implementation of the multimodal transportation system for the State (SLRTP) and metropolitan area (MTP), respectively, and forecasts out a minimum of 20-years from the time of adoption.⁸ FHWA is responsible for reviewing (but not approving) SLRTPs and MTPs. The MPO shall review and update the MTP at least every 4 years in air quality nonattainment and maintenance areas, and at least every 5 years in attainment areas.⁹

The SLRTPs and MTPs shall include both long-range and short-range strategies that lead to the development of an integrated multimodal transportation system, facilitate the safe and efficient movement of people and goods, and address current and future transportation demand. This includes identifying minority and low-income communities, and evaluating potential system-level social and environmental impacts that may affect minority or low-income populations.

The long-range plan section of the PlanWorks Decision Guide can help practitioners integrate EJ into key decisions through the long-range plan development process. It includes information on decision points related to scope, vision, evaluation, and other topics. PlanWorks will be available in 2015 and the FHWA

⁷ 23 CFR 450.210 and 23 CFR 450.316

⁸ 23 CFR 450.214 and 23 CFR 450.322

⁹ 23 U.S.C. 134 and 23 CFR 450.322

EJ website will link to it when it is available. The beta version of PlanWorks is currently available at: <https://fhwaapps.fhwa.dot.gov/planworks/default.aspx>.

Practitioners can use scenario planning to provide a framework that helps communities develop a shared vision for the future. This can help provide opportunities for low-income and minority individuals to influence early phases of the planning process. Scenario planning may analyze various factors that affect growth, such as health, transportation, economic development, environment, and land use. It allows practitioners to test the implications of various future policy alternatives at the statewide or metropolitan levels to determine whether they will meet State and community needs.

The goals of these planning efforts are to help communities decide what they want for their future and how they may achieve these aspirations under different possible future conditions. The [FHWA Scenario Planning Guidebook](#) provides detailed information on the six key phases that agencies are likely to encounter in the scenario planning process. Additional information and resources are available on the FHWA/Federal Transit Administration (FTA) Transportation Planning Capacity Building [Scenario Planning Technical Assistance Page](#).

State and MPO Transportation Improvement Programs

The statewide transportation improvement program (STIP) and MPO transportation improvement program (TIP) are short-range programs of transportation improvements. All projects in the STIP or TIP must be consistent with the SL RTP or MTP, respectively.¹⁰ An agency can alter or update the SL RTP or MTP with an amendment.¹¹ The STIPs and TIPs must be fiscally constrained which helps ensure that funding is available for all projects, including those in minority and low-income communities.¹²

To select projects, State DOTs and MPOs develop a project prioritization process. This establishes criteria and ranks projects based on their ability to deliver public benefits and support an agency's goals and objectives. FHWA funding recipients should consider including EJ in the prioritization process, where relevant. In assessing the equitable distribution of benefits and burdens, funding recipients should consider not only where impacts occur, but also when they occur in order to ensure an equitable distribution.

The programming section of the [PlanWorks](#) Decision Guide can help State DOTs and MPOs consider EJ at STIP and TIP decision points.

Short Term Work Programs

State DOTs may develop a Statewide Planning and Research (SPR) work program and MPOs develop a Unified Planning Work Program (UPWP). These are statements of work identifying planning priorities and activities over a 1-2 year period. Agencies can use these documents to explicitly identify EJ-related planning activities, such as:

- Identifying residential, employment, and transportation patterns of low-income populations and minority populations.

¹⁰ 23 CFR 450.324 and 23 CFR 450.216

¹¹ 23 CFR 450.326 and 23 CFR 450.104

¹² 23 CFR 450.104

- Developing an EJ plan.
- Conducting an EJ analysis of planning studies or documents.
- Mapping concentrations of minority, low-income, and other traditionally underserved populations.
- Training staff on EJ.

Many UPWPs are available online, and these documents can serve as helpful examples for how to integrate EJ into a UPWP.

Performance-based Planning

Performance-based planning enables an organization to define, measure, and manage its performance. While the Moving Ahead for Progress in the 21st Century Act (MAP-21) requires State DOTs and MPOs to use a performance-based approach to transportation decisionmaking, it does not specify that agencies develop EJ performance measures. However, establishing EJ performance measures could enable MPOs and State DOTs to more effectively address the needs of low-income populations and minority populations. Performance management for nondiscrimination can aid State DOTs in developing systematic metrics and reporting, which will help them conduct Title VI reviews of program areas, required as part of the [FHWA Title VI Program regulation](#). This is an opportunity for planners to coordinate with civil rights staff.

State DOTs and MPOs should solicit input from the public, including minority and low-income populations, in developing performance measures and targets. State DOTs, MPOs, and public transportation providers should also coordinate performance measures with one another, as appropriate, and assess these measures across different populations.

To access a discussion on EJ as a component of performance-based transportation plans, Federal guidance related to EJ, and case studies related to equity analysis and EJ, refer to FHWA's [Model Long-Range Transportation Plans: A Guide for Incorporating Performance-based Planning](#).

Examples of Performance-based Planning

The second Strategic Highway Research Program [Performance Measurement Framework for Highway Capacity Decision Making](#) suggests adopting performance measures related to community cohesion, noise, visual quality, emergency response time, and resident concerns as a way to measure a project's impact on communities. Page 58 of that document provides seven examples of performance measures tailored to disadvantaged populations.

Mid-Ohio Regional Planning Commission

The Mid-Ohio Regional Planning Commission conducted an EJ analysis of recent long-range transportation plans with a strong reliance on accessibility measures. The agency has three key objectives for their EJ analysis: (1) ensure adequate public involvement includes low-income and minority populations (2) assess adverse impacts on low-income and minority populations, and (3) ensure that low-income and minority populations receive a comparable share of benefits. The agency used its travel-demand model to assess equity based on metrics such as the following:

- Average number of accessible job opportunities.
- Percent of population close to a college.
- Average travel time for work trips.
- Displacement from highway projects.

([Performance Measurement Framework for Highway Capacity Decision Making](#))

San Francisco Bay Metropolitan Transportation Commission

The San Francisco Bay Metropolitan Transportation Commission added equity performance measures to its long-range plan. To measure whether the region's low-income residents would benefit from proposed transportation projects, the agency used an "equitable access measure," defined as the share of low-income and lower-middle income residents' household income consumed by transportation and housing. The agency aimed to reduce this number by 10 percent by reducing the cost of transportation for those residents. The agency also sought to reduce the distance and duration of commute trips for low-income residents.

([Model Long-Range Transportation Plans: A Guide for Incorporating Performance-based Planning](#))

Public Involvement in Planning

Public involvement needs to encompass the full range of community interests, yet people who are underserved by transportation often do not participate in transportation planning. They not only may have greater difficulty getting to jobs, schools, recreation, and shopping than the population at large, but they also may be unaware of transportation proposals. FHWA funding recipients should begin to involve the public early, when public input has the greatest potential to shape broad decisions and actions.

Planning regulations in [23 Code of Federal Regulations \(CFR\) 450.210 and 23 CFR 450.316](#) require State DOTs and MPOs to document their public involvement process through public involvement plans and participation plans, respectively. In both cases, agencies must “seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households.” Agencies must provide sufficient opportunity for the public and interested parties to provide input on public involvement processes and participation plans.¹³ State DOTs and MPOs must establish these public involvement/participation plans before developing any subsequent planning documents. For examples of existing participation plans, view the [FHWA Public Involvement website](#).

State DOT public involvement plans and MPO participation plans should include:

- Strategies for involving minority populations, low-income populations, other protected groups, and the required “interested parties” in transportation decisionmaking.
- Strategies to reduce participation barriers for minority and low-income populations.
- Outreach to organizations representing minority and low-income populations.
- Mechanisms to ensure documentation and consideration of issues raised by minority and low-income populations.
- Periodic review of the effectiveness of EJ strategies and tracking of mitigation measures.

Example: Considering EJ in Planning for Asset Management

Some TIPs or STIPs may focus on asset management rather than new projects. Asset management preserves existing physical assets and improves performance on a long-term basis. Some agencies consider social equity in asset management, and FHWA recognizes this as a best practice. For example, an agency may use geographic information systems (GIS) to overlay socio-economic information (including data on EJ populations) on the locations of asset management activities and corresponding infrastructure conditions. This can help assess whether benefits are equitably distributed.

The draft [New York State DOT Transportation Asset Management Plan](#) (May 2014) maintains that “a sustainable approach to programming considers the relative and cumulative value of the assets as they benefit the public, economy, and environment.” In addition to economic competitiveness and environmental stewardship, the agency lists social equity/community as one of three driving principles for its asset management plan.

For more information on asset management, please refer to the [FHWA Asset Management website](#).

¹³ 23 CFR 450.210 and 23 CFR 450.316

Public Involvement

Introduction

The Federal Highway Administration (FHWA) considers public involvement to be an integral part of transportation planning, project development, and other processes; and a crucial component of environmental justice (EJ). One of the U.S. Department of Transportation (USDOT) EJ principles is “to ensure the full and fair participation by all potentially affected communities in the transportation decisionmaking process.” By involving the public early and affording opportunities to provide input throughout, practitioners can build trust within communities and make informed decisions that benefit constituents. Building relationships with local groups and community leaders can improve the effectiveness and inclusiveness of participation.

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions to Consider for Public Involvement

FHWA staff should consider the following key questions related to public involvement. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have practitioners considered the composition of the affected area to determine whether minority populations, low-income populations, Tribes, or other protected groups are present?
- Have practitioners gathered feedback from and involved minority and low-income populations in early planning stages?
- Have practitioners sought to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation?
- Have practitioners considered non-traditional methods of outreach?
- Have practitioners reported back to the community about how they have incorporated input into analyses and decisions?
- Have practitioners worked with affected populations to determine a method for delivering benefits and mitigating adverse impacts?

Whenever possible and practicable, practitioners should encourage active community participation, recognize community knowledge, and use cross-cultural formats and exchanges. [Public Involvement Techniques for Transportation Decisionmaking](#) states that those underserved by transportation often do not participate in the planning process. Although they tend to have greater difficulty accessing jobs, schools, and recreational activities, underserved populations are also often unaware of transportation proposals that could dramatically change their lives. The section that follows describes public involvement requirements, terminology, challenges, and recommendations.

Requirements

Planning regulations in [23 Code of Federal Regulations \(CFR\) 450](#) require metropolitan planning organizations (MPOs) and State departments of transportation (DOTs) to develop and use a documented public involvement process in all planning processes. The regulation states that "the MPO shall develop and use a documented participation plan that defines a process for providing ... interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process."¹⁴ It also stipulates that "...the State shall develop and use a documented public involvement process that provides opportunities for public review and comment at key decision points."¹⁵ All MPOs and State agencies must have a participation plan that includes a defined group of "interested parties."¹⁶ Specific to EJ, 23 CFR Part 450 also stipulates that practitioners must "include a process for seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services."¹⁷

The FHWA NEPA regulations in [23 CFR 771.111](#) also require agencies to conduct public involvement. At a minimum, this should include "the exchange of information from the inception of a proposal for action through preparation of the environmental document." Each State DOT must have procedures approved by the FHWA to carry out a public involvement/public hearing program pursuant to 23 United States Code (U.S.C.) 128 and 40 CFR parts 1500 through 1508. State DOTs must provide for early and continuing opportunities during project development for the public to be involved in the identification of social, economic, and environmental impacts as well as impacts associated with relocation of individuals, groups, or institutions. State DOTs must also notify the public of opportunities for public hearings, indicating the availability of explanatory information. For additional detail on public involvement requirements in NEPA, please refer to [23 CFR 771.111](#).¹⁸

Recommendations

Identify Populations

Identifying people who may be interested in a transportation plan, program, study, or project is an important part of the public involvement process. The previous section, "Data Collection and Analysis," discusses several strategies for identifying populations. In addition, the Council on Environmental Quality (CEQ) [Environmental Justice Guidance Under the National Environmental Policy Act](#) describes six principles that provide general guidance, as follows:

- Consider the composition of the affected area to determine whether minority populations, low-income populations, or Tribes are present.

¹⁴ 23 CFR 450.316

¹⁵ 23 CFR 450.210

¹⁶ 23 CFR 450.210 and 23 CFR 450.316

¹⁷ Ibid

¹⁸ 23 CFR 771.111

- Consider the potential for multiple or cumulative effects to human health or the environment, even if certain effects are not within the control or subject to the discretion of the agency proposing the action.
- Recognize the interrelated cultural, social, occupational, historical, or economic factors.
- Seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation.
- Assure meaningful community representation as early as possible in the process.
- Seek Tribal representation that is consistent with the Government-to-Government relationship between the United States and Indian Tribal Governments.

After identifying populations, practitioners can determine which outreach methods will be most effective.

Develop and Implement a Public Participation Plan and Gather Feedback

Developing a [metropolitan public participation plan](#), [State public involvement plan](#), or [public participation/public hearing](#) procedures for project environmental review are important steps to integrate the needs and concerns of traditionally underserved populations into transportation decisionmaking processes. These documents serve as procedural guides for agencies and practitioners, and describe effective strategies for encouraging public participation. Implementing a public participation plan involves establishing the scope of the plan; developing a community contacts database; conducting outreach to the community; providing opportunities for protected populations to provide input; and assessing the effectiveness of the plan. For detailed information on implementing a public participation plan, see National Cooperative Highway Research Program (NCHRP) [Report 710: Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking](#).

Certain factors can sometimes deter the public from participating in the transportation decisionmaking process, including but not limited to: prior transportation experience(s); lack of trust in the Government; language and literacy barriers; cultural and communications preferences; and inability to attend meetings based on the time of day or a lack of access, awareness, or time. Each demographic population will face unique challenges, and all, some, or none of the aforementioned issues may be relevant for any given group. Effectively reaching underserved populations may require significant staff time and resources, and special efforts may encounter institutional resistance. Practitioners should identify and address any barriers to participation that impact minority and low-income populations. Some strategies for addressing barriers include non-traditional methods of outreach and early, proactive involvement.

Non-traditional Methods of Outreach

Non-traditional methods of outreach can supplement traditional methods and more effectively involve underserved populations. For example, agencies have done the following: involve local community leaders; attend meetings for community groups and faith-based organizations; research the minority group(s)' cultures (customs, language, etc.); tailor outreach strategies to a group's preferred style of communication; develop partnerships on a one-to-one or small group basis to ensure representation;

provide incentives for attending meetings; and use special outreach coordinators from diverse backgrounds to bridge cultural and economic differences that affect participation.

Early, Proactive Involvement

Conducting early outreach provides several advantages: diffusing potentially controversial issues; allowing for more people to understand a process or project; correcting rumors before they become issues; promoting proactive participation; establishing good relationships with underserved groups; getting people to help in the transportation planning process; breaking down historical barriers; and increasing chances for obtaining consensus.

Document and Incorporate Input in Analyses and Decisions

Practitioners should demonstrate how they have incorporated input into analyses and decisions to deliver benefits and mitigate impacts. Reporting back to communities increases transparency and allows the public to participate as a partner in developing solutions, imparting a sense of ownership.

Throughout planning and project development, practitioners should also document commitments to the community regarding expected benefits and anticipated mitigation.

Example: Partnering with Communities to Mitigate Impacts

Practitioners can work with communities in a variety of ways to avoid, minimize, or mitigate adverse effects. Examples include, but are not limited to, the following:

- Setting aside a portion of the budget for eligible small-scale community-driven projects.
- Drafting community benefits agreements, which are project-specific, legally binding contracts between project sponsors and community representatives that outline projects' benefits to communities.
- Supporting Safe Routes to School initiatives, which help children walk or bicycle to school safely.

Practitioners should work collaboratively with the affected populations when choosing among the many ways to deliver benefits and mitigate impacts.

In the early 1960s, Interstate-75 (I-75) bisected the Pleasant Hill community in Macon, Georgia. Forty years later, proposed improvements to the I-16/I-75 interchange had the potential to once again adversely impact Pleasant Hill. To prevent this from happening again, Pleasant Hills' historically African American community established the Pleasant Hills Neighborhood Improvement Group to work with the project team during the study on proposed improvements. The project team, in cooperation with the neighborhood group, successfully identified an acceptable alternative, developed a mitigation plan, and incorporated this into the project.

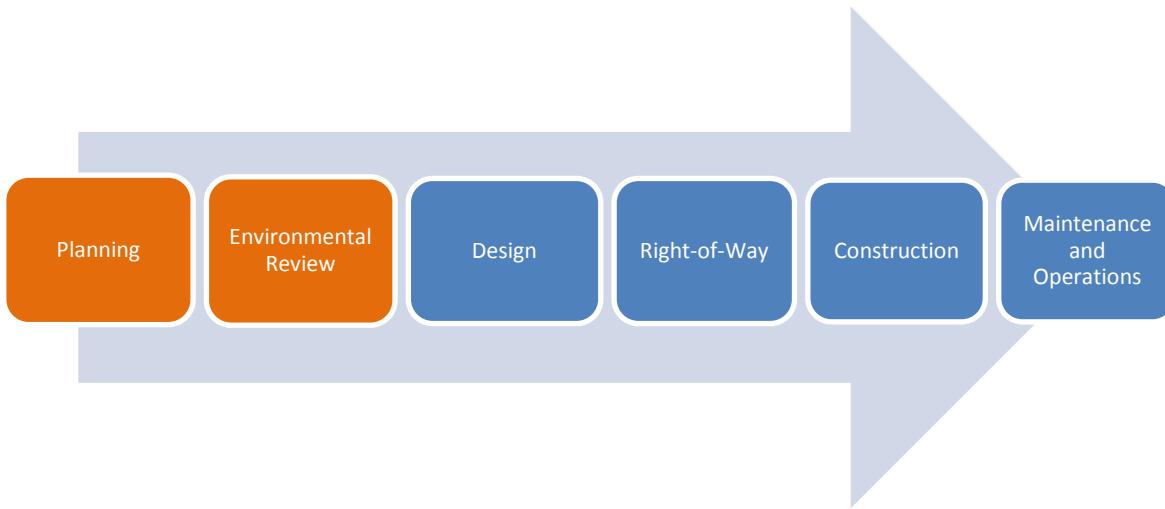
Mitigation measures included a linear park along the east side of I-75 with a multi-use trail, noise and visual barriers, improvements to local streets and sidewalks, reconstruction of a pedestrian bridge over I-75, and more. In the end, the project met its objective of enhancing highway operations and safety while maximizing the benefits to the local community. Read the full case study [here](#).

Resources

For more information on public involvement strategies, view the following:

- [FHWA Public Involvement Website](#), which includes [information specific to minority and low-income individuals](#).
- [Community Impact Assessment: A Quick Reference for Transportation](#), which outlines the community impact assessment process and provides strategies for facilitating public involvement in the decisionmaking process.
- [NCHRP Report 710: Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking](#), which discusses ways to identify and involve underserved and underrepresented populations in transportation decisionmaking.
- [FHWA Environmental Justice Emerging Trends and Best Practices Guidebook, Ch. 2, Public Involvement \(2011\)](#), which highlights best practices that promote EJ.
- [How to Engage Low-Literacy and Limited-English-Proficiency Populations](#), which provides best practices for identifying and working with LEP populations in transportation decisionmaking.
- [Transportation Planning Capacity Building Public Engagement Website](#), which lists publications, events, and organizations related to public engagement and involvement.

Linking Planning and Environmental Review



Introduction

Practitioners can improve outcomes for minority and low-income communities by ensuring that environmental justice (EJ)-specific planning information and decisions (from data collection, analysis, and public involvement) inform environmental review and subsequent phases of project development. [Planning and Environment Linkages \(PEL\)](#) represents a collaborative and integrated approach to transportation decisionmaking that: (1) considers environmental, community, and economic goals early in the transportation planning process; and (2) uses the information, analysis, and products developed during planning to inform the environmental review process. Effectively linking the planning and environmental review processes, including involvement from a State DOT realty and/or right-of-way specialist, can improve outcomes by ensuring a more effective transition from planning to project development for the public, including traditionally underserved populations, such as minority and low-income communities. PEL can also assist in accelerating project delivery and provide potential savings in time and money.

Practitioners may use information and decisions from planning studies to inform National Environmental Policy Act (NEPA) processes, if the materials satisfy NEPA requirements. Prior to incorporating the information practitioners should ensure that the data are current, the methodologies are reasonable, and the documentation is sufficient. Circumstances may change and data may no longer be representative of the study area between the time when an agency completes a plan and when the project is ultimately developed. Before using past studies, practitioners should review which data sources and public involvement activities informed those studies.

Practitioner

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Key Questions to Consider in Linking Planning and Environmental Review

FHWA staff should consider the following key questions in linking planning with environmental review processes. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have practitioners used the FHWA [PEL Questionnaire](#) or a similar process to help track whether minority and low-income populations are present, which potential impacts may be relevant to them, and how practitioners involved them in the planning process?
- Have practitioners reviewed past EJ findings to ensure that they are still accurate based on current available data?

Legislation and Regulations

Existing legislation and regulations encourage links between planning and environmental review. The Moving Ahead for Progress in the 21st Century Act (MAP-21) amended Title 23 United States Code (U.S.C.) by adding a new Section 168 for the integration of planning and environmental reviews. This section states that “the Federal lead agency for a project may adopt and use a planning product in proceedings relating to any class of action in the environmental review process of the project.” In addition, 23 U.S.C. 169(a) authorizes State DOTs and MPOs to develop programmatic mitigation plans during the planning process that could later be used during project development. Planning regulations under 23 Code of Federal Regulations (CFR) 450, NEPA regulations under 23 CFR 771, and Council on Environmental Quality (CEQ) regulations 40 CFR 1500-1508 provide that agencies may incorporate source material produced by, or in support of, the transportation planning process into subsequent NEPA documents, either directly or by reference. This may include information on early consideration and coordination regarding EJ concerns. Under FHWA planning regulations, the NEPA lead agencies must agree that the material’s incorporation will aid in establishing or evaluating the purpose and need for the project, reasonable alternatives, impacts on the human and natural environment, or mitigation.¹⁹ [Title 23 CFR 450 Appendix A](#) outlines processes that agencies may use to facilitate the adoption of planning decisions and documents during NEPA scoping.

Benefits

State and local agencies can achieve benefits by incorporating environmental and community values into transportation decisions early in the planning process and then carrying those considerations through project development and delivery. Minority and low-income communities may also benefit from this integrated approach. Potential benefits include:

- Building and maintaining relationships with other agencies and communities, allowing stakeholders to help shape transportation projects.

¹⁹ 23 CFR 450.212(b)(1)

- Improving efficiency and timeliness of project delivery.
- Improving project outcomes through early and coordinated consideration of potential impacts, thereby creating a transportation system that better serves community needs while avoiding and minimizing adverse impacts.

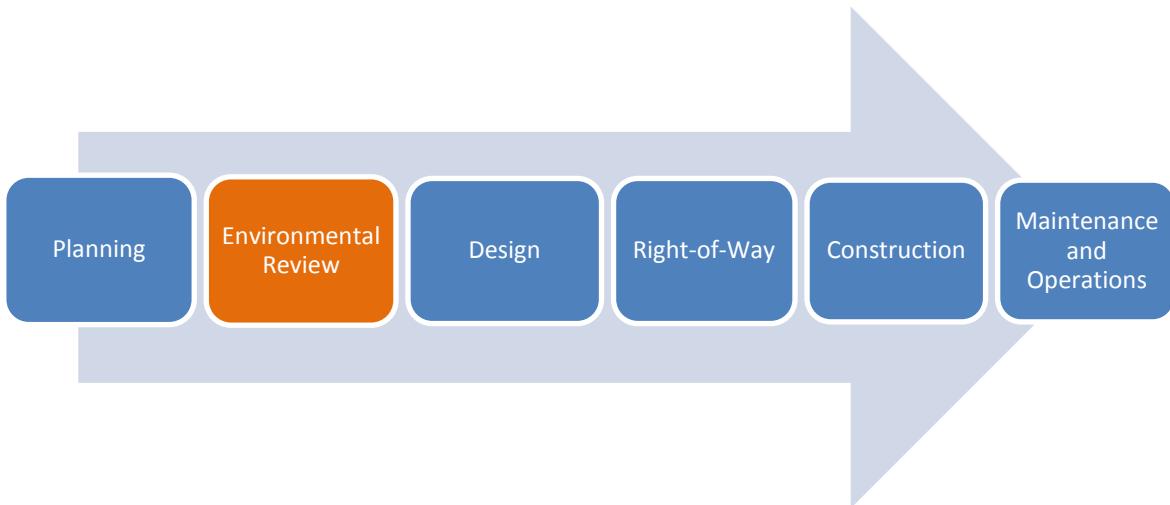
Tools

FHWA provides a number of tools, case studies, and guidance on how practitioners may use planning information to inform the NEPA environmental review process. One such tool is the [PEL Questionnaire](#), which is intended to: (1) inform planners about the requirements and options to consider while developing a planning study with a goal of informing the NEPA process; and (2) document and share relevant planning information with NEPA practitioners to build understanding about a project—both the information studied and areas that require more analysis. The questionnaire can help agencies track whether minority and low-income populations have been identified, which potential impacts may be relevant, and how practitioners involved communities in the planning process. Practitioners may refer to the [FHWA PEL website](#) for additional tools and resources to help them integrate the planning and environmental review processes.

Example: Anticipating the Sociocultural Effects of Transportation Projects

Anticipating the sociocultural effects of a project during the planning phase may help practitioners minimize the number of unintended consequences on the human environment, including those that affect minority and low-income communities, during environmental review and later project phases. The [practical application guide](#) for the Florida DOT *Efficient Transportation Decision Making (ETDM) Process* describes a process for evaluating sociocultural effects for projects undergoing planning and/or programming screen reviews. The process is collaborative, involving government agencies, the public, and other stakeholders, to address community values and concerns. The goal is to ensure that no populations are disproportionately affected.

EJ in Environmental Review



Introduction

This section describes the role of environmental justice (EJ) in the National Environmental Policy Act of 1969 (NEPA) and related environmental review processes. NEPA requires Federal agencies to consider the social and environmental effects of each individual project proposed for Federal funding. Regardless of the NEPA class of action (described in detail below), recipients of Federal Highway Administration (FHWA) funds must address and document, where a potentially impacted EJ population is identified, whether a FHWA-funded project will have a disproportionately high and adverse effect on minority and/or low-income populations.²⁰

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. Although primarily serving in an oversight and advisory role, FHWA is legally responsible for the content of a NEPA document.

²⁰ [FHWA Guidance on EJ and NEPA \(2011\); FHWA Order 6640.23A](#)

Key Questions to Consider for EJ in Environmental Review

FHWA staff should consider the following key questions related to EJ in environmental review. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Has EJ influenced the environmental review process?
- Does the NEPA analysis consider EJ in the impacts of each project alternative?
- Does the analysis incorporate on-the-ground field work?
- Does the NEPA document address EJ impacts, where applicable?
- Does the NEPA document assess whether any practicable mitigation measures or alternatives would avoid or reduce disproportionately high and adverse impacts on minority and low-income populations?
- Do recipients of Federal funds have a process for tracking commitments to ensure that practitioners implement them in subsequent phases?

Responsibilities of FHWA Division Offices

FHWA is responsible for working with recipients of FHWA funds to ensure that they integrate EJ into all FHWA-funded activities, including NEPA documentation. Not all NEPA analyses require a formal EJ analysis, but they should contain and address EJ impacts, as appropriate. FHWA Division Office staff should ensure that the State department of transportation (DOT) NEPA procedures require each project to do the following:

- Assess whether EJ impacts are possible.
- Conduct an EJ analysis (if impacts are possible).
- Evaluate, in consultation with FHWA, whether each alternative will have a disproportionately high and adverse impact on minority or low-income populations.
- Avoid or minimize any disproportionately high and adverse impacts to minority and low-income populations, or if impacts cannot be avoided, work with the affected community to develop mitigation measures to offset the impacts.
- Comply with all FHWA EJ policy and guidance.²¹

Direct, indirect, and cumulative effects

Council on Environmental Quality (CEQ) NEPA regulations require Federal agencies to address and consider direct, indirect, and cumulative impacts. Environmental justice analyses in NEPA should also consider each of these types of impacts. The [FHWA Environmental Review Toolkit](#) provides questions and answers on a variety of topics including the consideration of indirect and cumulative impacts in the NEPA process.

If a Division Office environmental specialist finds that elements of a NEPA analysis lack consistency with the principles outlined in [Executive Order \(EO\) 12898](#), the [FHWA Technical Advisory 6640.8A](#), and/or the

²¹ [FHWA Guidance on EJ and NEPA \(2011\)](#)

[FHWA EJ Order 6640.23A](#) (FHWA EJ Order) she or he should identify the inconsistency and, where appropriate, contact the FHWA Office of Project Development and Environmental Review to discuss strategies to proceed. When reviewing NEPA analyses, Division Office environmental protection specialists should ensure the following:

- In assessing whether a project may have EJ impacts, the project record should include a demographic profile that locates minority and low-income populations in the project area.
- Where an EJ impact is possible, the project's environmental documentation should include records of public involvement and outreach activities.
- Analysis should use mapping tools, such as geographic information systems (GIS), and integrate community concerns voiced through public involvement.
- When a proposed project will impact minority or low-income populations, regardless of whether the impacts will be disproportionately high and adverse, the environmental documentation should provide a clear and justifiable rationale for determining whether the impacts will be disproportionately high and adverse. FHWA funding recipients should draft this rationale in consultation with the Division Office environmental protection specialist.
- When NEPA practitioners determine that impacts to minority or low-income populations will be disproportionately high and adverse, they should develop mitigation measures in coordination with the affected community. As needed, the FHWA Office of Project Development and Environmental Review can assist with mitigation policy interpretation and implementation of various mitigation strategies.

Responsibilities of Recipients of Federal Funds

Project sponsors are responsible for assessing the benefits and burdens of federally supported activities on traditionally underserved and underrepresented populations in their NEPA documents. Division Office environmental protection specialists play an important role in ensuring that these agencies follow Federal guidance, because FHWA is the entity legally responsible for compliance with all environmental requirements, including Executive Order 12898 on EJ. The exception is that some agencies have assumed the full responsibility for NEPA implementation under the *Surface Transportation Project Delivery Program*, as described in 23 U.S.C. 327.

For multimodal transportation projects, State DOTs and MPOs should first determine which agency is the NEPA lead and then follow the guidance of that agency. Factors in determining the NEPA lead could include which agency is providing the bulk of the Federal funds, which agency has more experience working on multi-modal projects in the geographic area; or which agency has the staff time and experience to oversee the NEPA process.

Data Collection and Analysis

The NEPA and planning processes rely on a number of the same sources and methods for data collection; the U.S. Census, the American Community Survey, and data from the local metropolitan planning organization (MPO) are all good places to begin. However, practitioners should also incorporate on-the-ground field work in EJ analysis for NEPA. Meeting with residents and groups like the

local chapter of the National Association for the Advancement of Colored People (NAACP), community centers, and faith-based and social service organizations, allows the practitioner to learn more about the community than online data sources can reveal.

Practitioners should consider the following factors when conducting an EJ analysis as part of NEPA:

- Project location (e.g., a major metropolitan area versus a small, rural community).
- Project scope/size (e.g., corridor level versus a specific intersection).
- Level of documentation required, depending on the NEPA class of action and proposed impacts.

Figure 8 shows an example EJ analysis process for NEPA.

EJ Analysis in Environmental Review

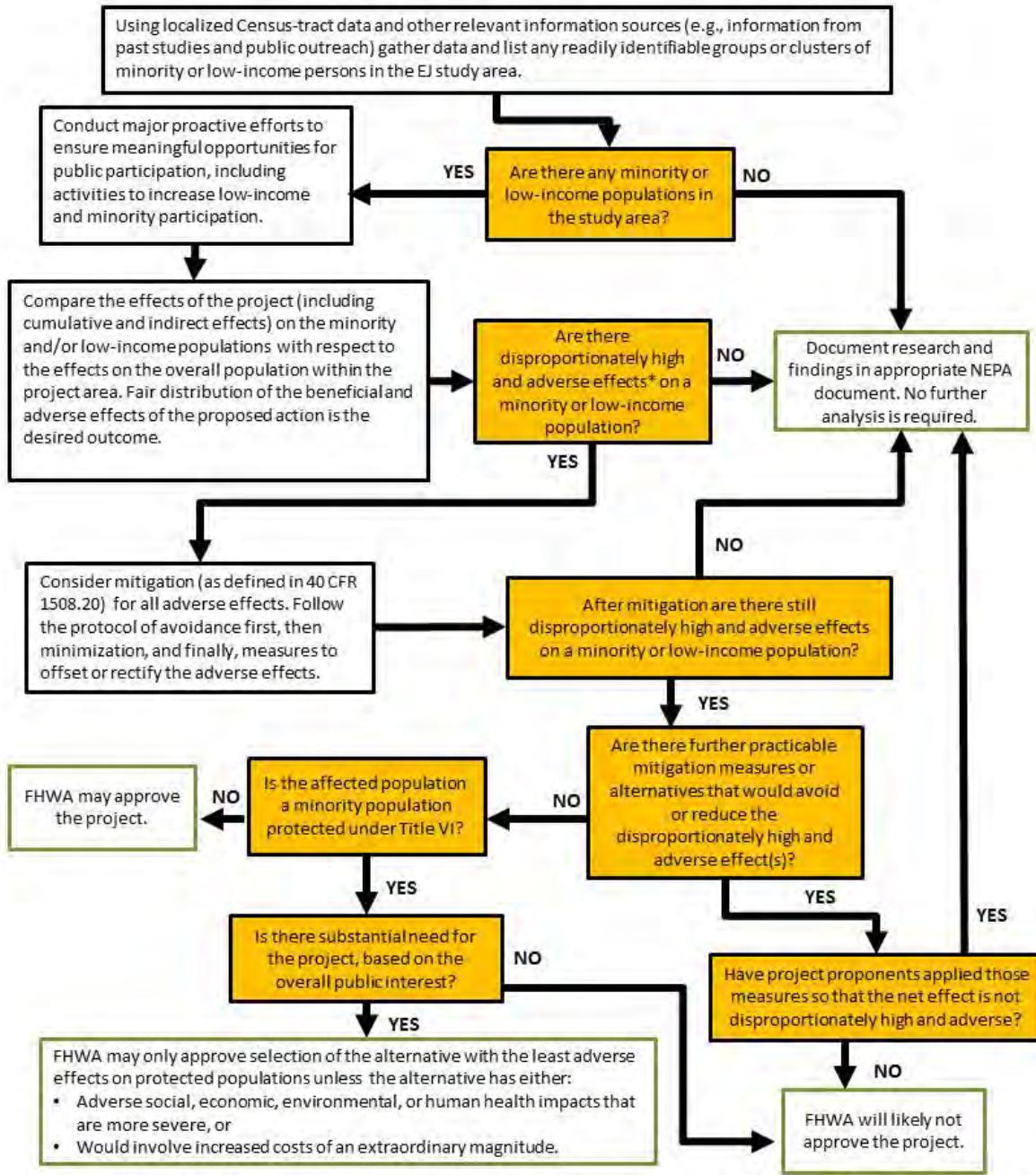


Figure 8. Example EJ analysis process for NEPA.

Scoping

During scoping, practitioners should examine the project area for historical and potential future impacts. They should also solicit feedback from the public. This provides the project sponsor insight into whether the community will experience benefits or burdens from the project, and allows the agency to modify alternatives from the outset to avoid or minimize adverse effects.

Although Executive Order 12898 only specifically references “disproportionately high and adverse” effects, there are also a variety of ways in which practitioners can mitigate lesser impacts. Examples include, but are not limited to, the following:

- Alter the timing of activities.
- Incorporate practices to prevent pollution and preserve air quality.
- Include additional benefits to the community.
- Incorporate measures proposed by the community.

To begin, practitioners should define the study area(s) and boundaries for potential EJ impacts. Different boundaries may be necessary to assess unique EJ impacts appropriately for a given project. Information from planning documents can help NEPA practitioners scope EJ issues and assess benefits and burdens. Using localized Census-tract data and other relevant information sources, such as preliminary fieldwork, practitioners should identify minority and low-income persons in the study area. FHWA guidance cautions practitioners not to overlook small clusters or dispersed populations.²²

Public Involvement

Title 23 Code of Federal Regulations (CFR) 771.111 states that “early coordination with the public aids in determining the environmental review documents an action requires, the scope of the document, the level of analysis, and related environmental requirements.” Also, 40 CFR 1506.6 and 23 CFR 771.105(c) require that practitioners “make diligent efforts to involve the public” in the NEPA process, which includes involving minority and low-income populations. To reach minority and/or low-income populations, a project sponsor may have to use strategic outreach methods, such as holding neighborhood meetings, conducting one-on-one interviews at a community center, or interviewing community leaders from faith-based and social service organizations. Refer to the “Public Involvement” section on page 32 for general guidance on public involvement.

Alternatives Analysis

The NEPA process requires practitioners to consider mitigation of adverse effects for all populations. Practitioners develop alternatives that avoid, minimize, or offset/rectify adverse effects and should consider minority and low-income populations early in this process. Practitioners should identify whether minority or low-income populations experience any disproportionately high and adverse effects under any of the proposed alternatives.²³

If disproportionately high and adverse effects on minority or low-income populations do exist, practitioners must assess whether any practicable mitigation measures or alternatives would avoid or

²² [FHWA Guidance on EJ and NEPA \(2011\)](#)

²³ [Ibid](#)

reduce the effects on those populations. If no practicable alternatives avoid, minimize, or mitigate the disproportionately high and adverse effects on low-income or minority populations, practitioners should follow the guidance outlined in [*FHWA Guidance on Environmental Justice and NEPA \(2011\)*](#), as depicted in Figure 8.

The Alternatives Analysis section is also the place to describe any benefits the project may bring, as the benefits may offset adverse effects. For example, will the project improve access to educational, employment, or recreational opportunities for minority or low-income populations? Will it improve access to the doctor's office or grocery store? The NEPA documentation should include benefits in addition to potential adverse effects.

Documentation

As mentioned above, **the action agency should consider EJ impacts for all NEPA classes of action**. However, the documentation of EJ concerns and level of detail may vary depending on the context. If no significant EJ impacts exist, this documentation can be brief. [*FHWA Guidance on Environmental Justice and NEPA \(2011\)*](#) includes additional information on EJ documentation for NEPA.

Categorical Exclusion

A categorical exclusion (CE) is a category of actions that do not individually or cumulatively have a significant effect on the environment and, therefore, do not require an environmental assessment or an environmental impact statement. There should not be any disproportionately high and adverse impacts to minority or low-income populations for a CE action. Practitioners should still consider impacts on minority and low-income populations even if they anticipate that an action will be a CE. This includes CEs that are listed under [23 CFR 771.117\(c\)](#), which do not normally require any further NEPA approvals by the Administration. Practitioners may also consider whether minority and low-income populations will be impacted by CEs listed under [23 CFR 771.117\(d\)](#), which require that project sponsors prepare documentation that demonstrates that specific conditions or criteria are satisfied before the Administration makes a CE determination. For all types of CEs, if the project results in no impacts on minority and low-income populations, practitioners need not include a detailed summary of the EJ analysis; a brief sentence or two indicating the lack of EJ impacts may be sufficient, depending on the project or Federal approval. The project sponsor should coordinate with their local FHWA Division Office for further guidance on the necessary level of detail.

Environmental Assessment

The purpose of an environmental assessment (EA) is to help FHWA and the project sponsor determine whether a project would result in a significant impact and, thus, require the preparation of an environmental impact statement (EIS). There should be no disproportionately high and adverse impacts to a minority or low-income population for an EA. If it becomes clear in developing the EA that a project would result in a disproportionately high and adverse impact to a minority or low-income population, then a careful review may be needed to determine if it is no longer appropriate to complete the EA and a Finding of No Significant Impact (FONSI). However, if avoidance and mitigation could address the adverse EJ impact, completing the EA and reaching a FONSI may be appropriate. For each alternative that is considered, the EA should discuss any social, economic, and environmental impacts whose

significance is uncertain. It should analyze impacts to and mitigation measures for minority and low-income populations. Practitioners should also describe why these impacts are not considered disproportionately high and adverse if the EA results in a FONSI.²⁴

Environmental Impact Statement

In the Affected Environment section of the EIS, practitioners should provide demographic information on the population in the project study area. In this section, they should also identify whether certain social groups will benefit from or be harmed by a proposed project.²⁵ The document should then compare impacts on the minority and/or low-income populations with respect to the impacts on the overall population within the project area.²⁶ As presented above in the EA language, practitioners should also describe why these impacts are not considered disproportionately high and adverse. If the project team identifies a disproportionately high and adverse impact on a minority or low-income population, the team should follow the steps outlined in [FHWA Guidance on Environmental Justice and NEPA \(2011\)](#). As described in that document, practitioners should consider Title VI and EJ separately. Although related, they have unique requirements. That document instructs practitioners to collaborate with the affected community in seeking all reasonable and practical measures to avoid and minimize the adverse effects. The document also instructs Division Office staff to consult with the FHWA Office of Project Development and Environmental Review and the FHWA Office of Chief Counsel.

At a minimum, practitioners should consider all of the possible impacts that are listed in 23 [United States Code \(U.S.C.\) Section 109\(h\)](#): (1) air, noise, and water pollution; (2) destruction or disruption of man-made and natural resources, aesthetic values, community cohesion, and the availability of public facilities and services; (3) adverse employment effects and tax and property values losses; (4) injurious displacement of people, businesses, and farms; and (5) disruption of desirable community and regional growth. Practitioners should also describe any secondary data sources used to validate findings. For example, personal contact with community leaders and visual inspections are important potential sources of information and should appear in documentation.²⁷

Mitigation and Commitments Page

Mitigation measures in the NEPA document should be part of the final package when a project moves into the final design phase. Agencies should develop mitigation on a case-by-case basis in collaboration with the public. For an EIS, mitigation measures and other commitments would appear in the ROD. For an EA, commitments would appear in the FONSI. Agencies may also include a commitments page in the environmental documentation for a CE. Documentation of commitments and agreement among all involved parties (e.g., resource agencies, practitioners, and the public) ensures that they will carry through in the design, construction, and subsequent phases. Drafting

Potential Project Mitigation Measures

- Minimized noise disturbances
- Air quality management (e.g., dust control)
- Ongoing soil and groundwater investigations
- Sidewalk replacements

²⁴ [FHWA Technical Advisory 6640.8A \(1987\)](#)

²⁵ [FHWA Technical Advisory 6640.8A \(1987\)](#)

²⁶ [FHWA Guidance on Environmental Justice and NEPA \(2011\)](#)

²⁷ [FHWA Technical Advisory 6640.8A \(1987\)](#)

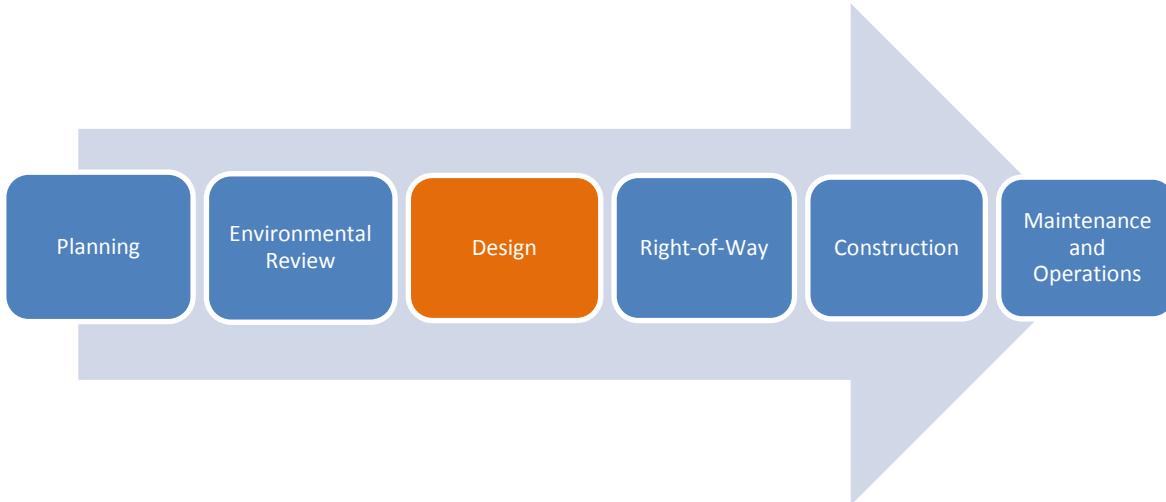
“project mitigation measures and commitment” pages, also commonly referred to as “greensheets,” can prevent practitioners from forgetting or overlooking mitigation measures in subsequent phases of project development.

Resources

FHWA provides a number of resources that can provide more information on the NEPA process and connections with EJ. These include the following:

- [FHWA Technical Advisory 6640.8A \(1987\)](#) – Provides guidance to FHWA and to project applicants on the preparation and processing of environmental documents.
- [FHWA Guidance on Environmental Justice and NEPA \(2011\)](#) – Advises FHWA Division Offices on how to address EJ during NEPA review, including documentation requirements.
- [FHWA EJ and NEPA Case Studies \(2012\)](#) – Describes 10 case studies on EJ analysis during the environmental review process.
- [FHWA EJ Questions and Answers \(2014\)](#) – Provides answers to frequently asked questions about EJ analyses for NEPA compliance.
- PlanWorks – The Decision Guide for “Environmental Review/NEPA Merged with Permitting” can help practitioners incorporate EJ throughout various aspects of the NEPA process, including Scoping, Purpose and Need, Study Area, Evaluation, Alternatives, and Mitigation. PlanWorks will be available in 2015 and the FHWA EJ website will link to it when it is available. The beta version of PlanWorks is currently available at: <https://fhwaapps.fhwa.dot.gov/planworks/default.aspx>.

EJ in Design



Introduction

This section discusses environmental justice (EJ) responsibilities during the preliminary and final design stages of transportation project development. In these stages, Federal Highway Administration (FHWA) funding recipients refine the proposed project location and define design concepts.

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions to Consider for EJ in Design

FHWA staff should consider the following key questions related to EJ in design. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Has EJ influenced the preliminary design process?
- Are designers aware of all commitments in the planning and environmental documentation and do they understand them?
- Have designers communicated all commitments to construction staff and contractors?
- What design components are essential to address EJ issues?

Preliminary Design

Preliminary design occurs concurrently with National Environmental Policy Act (NEPA) review and supports the NEPA decisionmaking process. It can include a variety of preliminary engineering and other activities and analyses, such as environmental impact assessments, topographic surveys, geotechnical

investigations, and more, depending on the project.²⁸ These activities and the preliminary design report establish parameters for final design, which proceeds after the NEPA determination.²⁹ Although practitioners should consider EJ throughout the entire design phase, they should take special care to identify and mitigate potential EJ issues through the preliminary design process, in conjunction with NEPA.

There should be strong communication between designers and NEPA practitioners in preliminary design so that all parties are aware of issues that arise during the NEPA review process. NEPA practitioners should work alongside designers to identify design options that are feasible for the project area and mitigate potential EJ issues before the project reaches final design. It is important that NEPA practitioners carefully explain EJ issues and mitigation commitments to designers to ensure implementation.

Final Design

Once a project reaches final design, practitioners have less flexibility to change the design plan. If the final design differs from the preliminary design, then practitioners must evaluate these changes to ensure that they are still consistent with the NEPA decision, and they may need to conduct additional public involvement. Final design typically involves staff from various functional disciplines such as survey, geometric design, hydraulics, structures, right-of-way (ROW), utilities, environment, safety, and construction to ensure that the agency makes informed decisions.³⁰

At this stage, designers should already be aware of commitments made in planning and NEPA. They should make sure that they understand all commitments and include them in the construction contract limitations and provisions to inform all potential contractors of EJ requirements. Construction limitations may relate to noise ordinances, overnight lighting concerns, road closure limitations, or other issues. Provisions can alleviate impacts by stipulating strategies such as the following:

- Identify alternate accessible paths of travel that are safe and accessible for persons of all ages and abilities, and make communities aware of these routes.
- Create parking alternatives for the temporary or permanent loss of on-street parking.
- Ensure project information will be available in languages commonly spoken in the area.
- Offer tips to small businesses to help them stay open during construction.

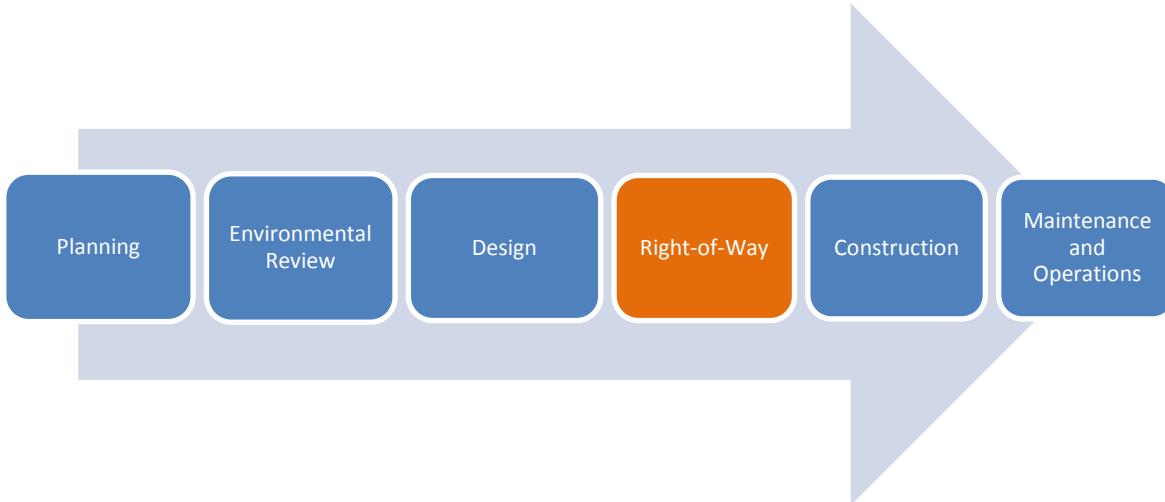
Designers should consider ways to draw attention to design recommendations and other commitments, such as adding a page that summarizes all commitments and posting commitments on a project's website.

²⁸ [FHWA Order 6640.1A; Clarifying the Scope of Preliminary Design](#)

²⁹ [23 CFR 636.103](#)

³⁰ [Preliminary design FAQs](#)

EJ in Right-of-Way



Introduction

This section can help FHWA staff consider environmental justice (EJ) in right-of-way (ROW) activities. ROW activities are linked to (and often run concurrently with) other phases of project development, so ROW staff should routinely coordinate with staff from other disciplines. ROW practitioners should seek to understand impacts on minority communities and low-income communities, and communicate them to those working on other aspects of the project development process.

Practitioner

In this section, the term practitioner refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions to Consider for EJ in ROW

FHWA staff should consider the following key questions related to EJ in ROW. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have ROW practitioners communicated about potential ROW issues and implications to planners, environmental staff, designers, and affected populations?
- Have ROW practitioners considered how they can help reduce the impact on low-income and minority populations that may not receive benefits under the Uniform Act but still bear a burden from project impacts?
- Have practitioners considered which ROW information is especially relevant to share with low-income and minority populations at public meetings?

Requirements

In order to build transportation projects, agencies sometimes need to acquire land; and in so doing, they must fairly compensate the owners of that land. The [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970](#) (Uniform Act) provides detailed information about protections and benefits for people and businesses displaced by Federal and federally assisted projects. Congress passed the Uniform Act to promote the fair, consistent, and equitable treatment of displaced persons. The Uniform Act requires that agencies reimburse displaced persons for certain costs and provide means to communicate with the displaced person in their preferred language if they have limited English proficiency. Only those whose real property is acquired can receive compensation through the Uniform Act even though the surrounding businesses and residents that are left behind also may bear a burden from the project impacts. However, according to [49 Code of Federal Regulations \(CFR\) 24.205\(c\)](#), if those who are not directly affected incur substantial economic injury because of the acquisition, the acquiring agency may offer advisory services. Any such services must be offered without discrimination to any persons in accordance with Title VI.

Homeless and Transient Populations

The Uniform Act applies only to legal residents and does not include provisions for homeless and transient populations ([42 U.S.C. 4601](#)). However, acquiring agencies should be aware of homeless and transient populations and may offer advisory services to those individuals at the agency's discretion. FHWA produced a webinar that highlights potential approaches to address the presence of transient encampments on rights-of-way and other public lands owned by transportation agencies. A [recording of the webinar](#) is available.

Recommendations

ROW practitioners should participate in planning so they can help identify the locations and types of properties a project will affect and note potential impacts. For example, they can inform the other disciplines about the available housing stock, owner/renter proportions, business locations, and which entities will be problematic to relocate. They should stay involved throughout NEPA and preliminary design and participate in public hearings to fully understand EJ issues that arise during NEPA review. NEPA and ROW practitioners should make sure to consistently communicate with each other so that environmental document preparers can address EJ issues pertaining to relocation as soon as ROW practitioners identify them. Usually, by the time a project gets to the ROW acquisition and relocations phase, NEPA practitioners will have already chosen a preferred alternative, identified EJ issues, and adopted any mitigation measures. However, under certain conditions, 23 United States Code (U.S.C.) 108 allows transportation agencies to acquire property prior to the completion of the NEPA review for the project that would use the property. In the event of an early acquisition, practitioners should proactively consider potential EJ issues that may emerge during project development.

A thorough EJ analysis in the ROW phase will consider both business and residential impacts. ROW practitioners should make every effort to ensure that relocation options for displaced individuals and acquired businesses address needs for similar access to their jobs, public transportation, current schools, child care, and any other community services that they currently have, especially if residents previously walked to these locations. These new services should be reasonably equivalent in terms of their quality and the convenience with which residents can access them. ROW practitioners should also be aware of the availability of Section 8(a) housing (a Federal program to assist low-income families, the

elderly, and persons with disabilities to afford decent, safe, and sanitary housing in the private market) and other housing assistance programs in the area. The [HUD Housing Choice Vouchers Fact Sheet](#) provides additional information. ROW practitioners should address the needs of the community during relocation planning and interviews.

The ROW planning stage involves conveying and explaining property rights and potential relocation benefits to soon-to-be displaced individuals, households, businesses, farms, and non-profits. It requires careful preparation to successfully deliver information about an individual's or family's potential relocation, compensation, and comparable replacement properties available on the market.

Example: Newtown Pike Extension

The Newtown Pike Extension Project in Lexington, Kentucky, necessitated a sizeable EJ mitigation effort to preserve an historic and low-income community. At the time of displacement, there was little housing available at the current rental rate and no decent, safe, and sanitary housing available. The project team set up temporary housing while constructing new affordable housing adjacent to these communities' former residences.

For more information on the project, visit: www.newtownextension.com/project-overview.

Public Involvement

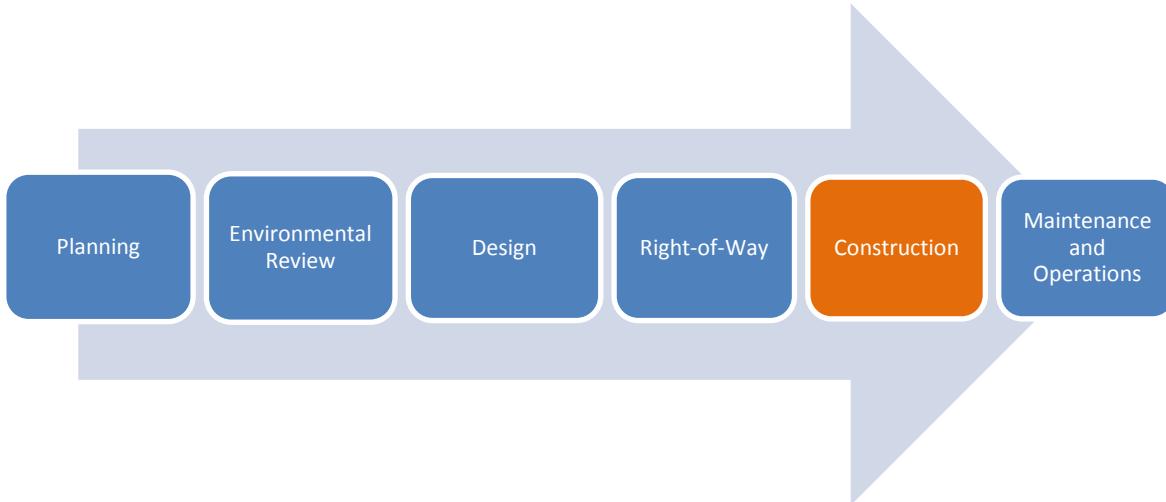
ROW practitioners typically participate in public meetings during Planning and NEPA; they should maintain general knowledge of local populations and community resources, and coordinate with planning and project development processes as early as possible. During planning, ROW practitioners often attend public meetings and may explain potential project impacts and the ROW process to owners of properties that may be affected by the project. During NEPA review, ROW practitioners attend public hearings to answer general questions about acquisition and relocation benefits.

ROW practitioners should remind the members of the public that it can take years to complete the NEPA process. At the planning stage, ROW practitioners should make themselves available to the public as a source of information and to build awareness around the ROW process. Providing the public with informational resources will help educate and manage expectations. FHWA provides a number of such resources that may be helpful for transportation practitioners and the general public such as the [Real Estate Acquisition Guide For Local Public Agencies](#), an [acquisitions brochure](#), a [relocation brochure](#), and a video on [ROW Requirements and the Uniform Act](#). When early acquisition, hardship, or protective buying takes place, the ownership by the agency should be transparent so as not to cause a negative project influence(i.e. impact on the community).

ROW practitioners should conduct interviews with those facing relocation to determine whether there will be any major issues such as the relocation of a business away from its market. Sometimes EJ issues will arise during these interviews but typically they are identified and mitigated during NEPA and environmental review. ROW practitioners should warn potential displacees (whether owners or renters) not to move prior to receiving an offer of relocation benefits or a notice of intent to acquire from those tasked with performing the relocations; they could jeopardize their benefits by doing so. ROW

practitioners should also inform owners that it is in their best interest to continue maintaining a property, even if vacant, as the condition of the house will influence the “fair market value.”

EJ in Construction



This section discusses environmental justice (EJ) responsibilities during construction. During the design phase, Federal Highway Administration (FHWA) funding recipients incorporate EJ recommendations and commitments into construction contract documents so that all potential contractors understand these items and take them into consideration when bidding for a project.³¹

Working closely with funding recipients, FHWA staff can help ensure that project development staff incorporates commitments made during project decisionmaking into final design and construction. Subsequent contract

Practitioner

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Key Questions to Consider for EJ in Construction

FHWA staff should consider the following key questions related to EJ in construction. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Are potential bidders aware of and do they understand EJ-related design commitments articulated in the construction contract?
- Do any contract change orders alter or compromise design commitments, or do they create new EJ issues?

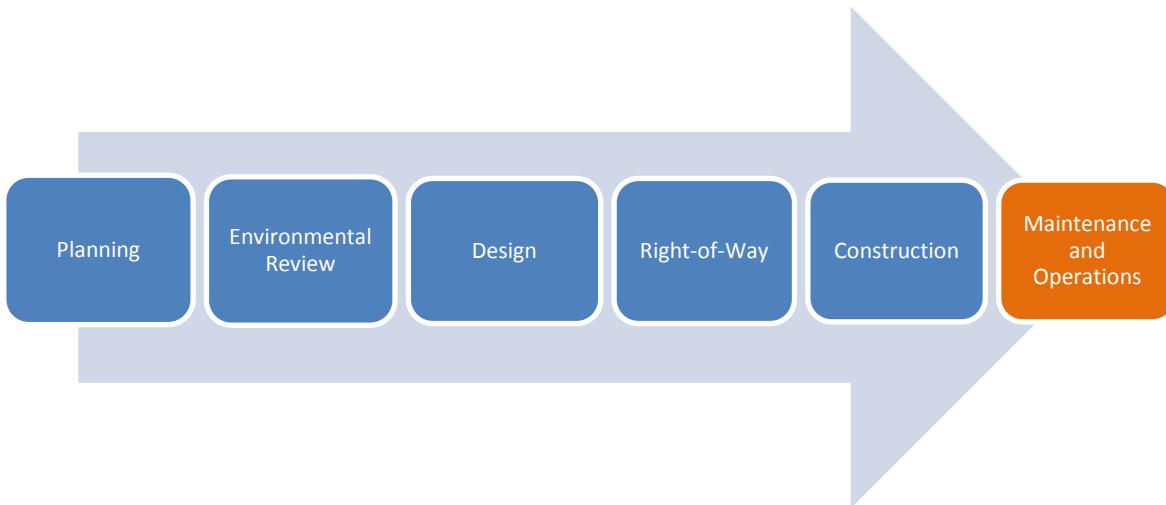
³¹ [FHWA Contract Administration Core Curriculum Participant's Manual](#)

actions, including change orders, should not alter or compromise those commitments in any way or create new EJ issues. During construction the funding recipient and the contractor should ensure that the contractor builds the project according to the contract documents.

Sometimes contractors experience unforeseen conditions in the field that require a change order to alter the contract requirements.³² Contractors frequently use change orders to make the design a better fit for the actual field conditions. A change order may result in a better product at no substantial increase in cost or time, or an equivalent product with savings in cost, time, or both. FHWA funding recipients should ensure that construction project staff fully understand all contract commitments and requirements, including EJ and other National Environmental Policy Act (NEPA) commitments, when reviewing and approving contract modifications to ensure that the changes are consistent. Good communication is important to ensure that the contractor can effectively transition commitments and recommendations into the modified design and understand any potential new impacts.

³² [FHWA Construction Program Guide](#)

EJ in Maintenance and Operations



Introduction

This section discusses environmental justice (EJ) responsibilities in maintenance and operations. Maintenance and operations encompass a wide variety of activities including arterial road management, congestion pricing, tolling, traveler information, road weather management, incident management, work zone safety, and planned special events coordination. These activities have broad implications for all populations, and Federal Highway Administration (FHWA) funding recipients should incorporate equity considerations into these activities.

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Key Questions to Consider for EJ in Maintenance and Operations

FHWA staff should consider the following key questions related to EJ in maintenance and operations. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Do the pricing mechanisms and changed traffic patterns of road pricing projects result in disproportionately high and adverse impacts on minority and/or low-income populations?
- When making temporary changes to the transportation system, do practitioners provide accessible alternatives and communicate changes in accessible formats?
- Have practitioners considered the impacts of signal phasing and timing?

Recommendations

Practitioners should be aware that maintenance and operations activities may impact minority and low-income communities differently than other populations. For example, during a winter storm an agency may habitually plow roads in non-EJ neighborhoods before plowing roads in certain low income and minority neighborhoods. This could affect members of the low income and minority neighborhoods' ability to get to work, which is a negative impact. Practitioners should consider whether the benefits and burdens of maintenance activities are equitably distributed. The following sections describe how practitioners can address EJ as it relates to maintenance and operations.

Road Pricing and Tolling

Congestion pricing and variable pricing are popular congestion management strategies applied to existing roadways. Tolling has become popular with state and local transportation leaders as a funding mechanism for maintenance, operations, and construction; unlike congestion/variable pricing, a toll is a constant fee that does not vary during peak periods. These approaches can be beneficial, but they also raise important equity issues and are often opposed by the general public. According to studies conducted by FHWA and partner agencies at the State and local level, early consideration of equity issues in the planning and environmental review phases is critical to the success of road pricing projects.³³ When an agency implements a flat fee for a tolled roadway, low-income persons may no longer be able to afford to use the road. Also, many road pricing schemes require travelers to have a transponder—a device that receives a radio signal and sends out a signal in response for payment transactions. Some studies have observed that the cost of a transponder, as well as account setup, can be a barrier for the low-income driver. In cases where the user must link acquisition of a transponder to a bank account or credit card, this often poses a barrier for those without such accounts. Many operators now allow people to pay for a transponder with cash—all practitioners should consider providing this option.

To prevent minority and low-income communities from bearing disproportionately high and adverse effects from tolling, practitioners should consider effective corridor management strategies that look to provide positive alternatives such as improvements in car and van pooling support, general purpose lanes, and transit services. Congestion pricing projects usually already include these alternatives. Transit subsidies and/or service improvements, car or van pool incentives or support facilities, or other alternatives may be considered as mitigation measures for impacted EJ populations and other communities.

In addition to affordability concerns, tolling and congestion pricing can impact traffic patterns. This happens because some drivers will choose to avoid roads with a higher cost. Traffic diversion can generate traffic problems in other areas and must be analyzed along with other impacts of road pricing. It is possible that this shift in route choice may also negatively affect minority and low-income populations if the congested traffic goes through their communities. Practitioners should consider whether road pricing would change traffic patterns in a way that leads to air quality, noise, and/or safety problems for nearby communities, including minority and low-income communities.

³³ [FHWA Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts on Road Pricing \(2013\)](#)

Where possible, the consideration of tolling alternatives should be identified as part of the funding package for a transportation facility during the transportation planning process. As the project is selected for implementation through the use of federal-aid funds, practitioners should evaluate the potential impacts on minority and low-income communities as part of the National Environmental Policy Act (NEPA) process. Practitioners should also identify and assess mitigation strategies to help avoid disproportionately high and adverse impacts.

For more information on how to develop an effective and publicly-supported road pricing program, see the following resources:

- [National Cooperative Highway Research Program \(NCHRP\) Report 686: Road Pricing: Public Perceptions and Program Development](#)
- [FHWA Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts on Road Pricing](#)

Example: Considering Equity in Tolling Plans

One State department of transportation (DOT) took the following steps to involve the public, consider equity, and establish appropriate mitigation measures for a tolling project. Other agencies may consider these and other strategies, as appropriate, to support EJ and other aspects of social equity:

- Establish a tolling implementation committee to involve the public and advise the legislature.
- Task the tolling committee with demonstrating the overall need for tolling and the benefits for users of all income levels.
- Collaborate with the regional transit agency to increase express bus service within the corridor for several months leading up to the start of tolling.
- Provide traffic mitigation funds to local agencies to address the impacts of the expected traffic diversion.

Work Zones and Planned Special Events

Safety—for both workers and travelers—is an important consideration for practitioners when addressing temporary changes to the transportation system, such as work zones and planned special events. These temporary changes often impact nearby businesses, transit routes, and emergency responders. If this may result in disproportionately high and adverse effects on minority and low-income populations, practitioners must assess and then avoid, minimize, or mitigate the impacts. Examples of mitigation may include, but are not limited to, the following: providing assistance to local businesses that serve minority and low-income communities, including those with Limited English Proficiency (LEP), providing alternate access to transit stops that will be obstructed, and providing temporary parking to offset parking restrictions.

Practitioners should be aware of the equity implications of relying on social media and other technologies to alert users of temporary changes to the transportation system, considering that not all

populations may have these technologies. One method for addressing this is to provide alternative formats that the public can use to obtain information, such as an automated telephone line. Similarly, the language and location of variable message signs may render them inaccessible for certain populations. To address these common challenges, practitioners should mark detours, evacuation routes, and other temporary changes to the transportation system by providing clear signage in locations accessible to all, like bus stops, and in the most commonly used languages in the area.

Signal Phasing and Timing

Signal phasing and timing can strengthen or weaken the fabric of a community. For example, children who cross a major roadway to attend school are influenced by the length and frequency of the crossing phase. Practitioners should consider signal phasing as a tool to improve livability and safety for minority and low-income communities.

Freight Considerations

Introduction

Freight movements may offer many positive benefits to communities—including jobs, increased tax revenue, and support for the growing “just in time” demands of consumer markets. Freight may also have negative effects on communities, such as noise, light, and air pollution; truck parking and safety concerns; and congestion impacts. Impacts are most intense in close proximity to freight facilities and corridors, which can mean that disadvantaged populations may suffer a large share of negative environmental impacts if they are located near freight yards and/or corridors.

The Federal Highway Administration (FHWA) recommends that practitioners include freight considerations in land-use policies, because freight influences environmental, economic, and social factors in a community. FHWA funding recipients should analyze and address any potential for disproportionately high and adverse impacts on minority and low-income populations on the program and/or project level.

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Key Questions to Consider for EJ in Freight

FHWA staff should consider the following key questions related to EJ in freight. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have practitioners used geospatial analysis to assess the equity of freight impacts?
- Have practitioners proactively involved minority and low-income communities to discuss the benefits and burdens of freight and ways to mitigate harmful effects?

Data Collection and Analysis

Practitioners can use geographic information systems (GIS) to map freight data along with demographic data to determine whether minority or low-income communities have experienced or will experience disproportionately high and adverse impacts from freight movements. Freight movements may impact many areas, which include but are not limited to, the following:

- Land-use patterns.
- Noise and vibration.
- Light pollution – Lights from trains and trucks may increase the brightness of the night sky and shine into residents' windows, disrupting the sleep of residents who live along railroads and truck routes.
- Air quality and odors.
- Safety – At-grade crossings increase auto delays and safety concerns, and slow emergency response vehicles. Large truck crashes may also cause injuries, fatalities, and hazardous materials incidents.
- Employment – Freight centers near low-income communities often hire a portion of local residents, providing competitive pay and easy access to work.

When considering EJ in the context of freight decisions, practitioners can use many of the same data sources described in the “Data Collection and Analysis” section on page 12. Practitioners should also consult freight-specific data sources, such as:

- [FHWA Freight Analysis Framework](#) – Integrates data from a variety of sources to create a comprehensive picture of freight movement among States and major metropolitan areas by all modes of transportation.
- [U.S. Census Bureau Commodity Flow Survey](#) – Provides data on the movement of goods in the United States. The U.S. Census Bureau conducts this survey every 5 years, and FHWA incorporates the latest available data into its freight tools, such as the Freight Analysis Framework Data Tabulation Tool, described in the bullet point above.

Public Involvement

Practitioners should proactively involve communities to discuss the benefits and burdens of freight and ways to mitigate potential harmful effects. The FHWA [Freight and Land Use Handbook](#) suggests several strategies to involve community groups and residents. These include:

- **Create a neighborhood investment fund** – These funds, created by freight carriers or freight generating industries, can facilitate local economic development and open lines of communication between freight operators, local officials, and surrounding communities.
- **Hire locally** – Developing an on-site workforce composed of local residents supports the local economy and improves relations with community members.

- **Establish forums for comments and questions** – Websites, phone lines, and other avenues can provide opportunity for community input and keep local freight operators accountable for addressing issues.
- **Add community stakeholders to metropolitan planning organization (MPO) freight committees and working groups** – Many MPOs have formed freight committees and task groups. However, these usually focus on involving the freight community and do not consider the public or large businesses that are primary shippers/receivers. Including community stakeholders can help to consider and address the needs of communities, including those of minority and low-income populations.

Resources

FHWA provides a number of freight resources that may be relevant to EJ, including the following:

- [FHWA Freight Management and Operations Website](#) – Offers research insights, analytical tools and data, and guidance on funding opportunities.
- [FHWA Freight Planning Website](#) – Provides a variety of resources to help practitioners make informed decisions regarding freight planning at the State and local levels.
- [FHWA Freight and Land Use Handbook \(2012\)](#) – Provides transportation and land-use planning practitioners in the public and private sectors with tools and resources to assess the impacts of land-use decisions on freight movements as well as the impacts of freight development and growth on land-use planning goals.
- [FHWA Freight and Air Quality Handbook \(2010\)](#) – A resource for State departments of transportation (DOTs), MPOs, FHWA, and other public- and private-sector organizations to use in developing solutions to freight and air quality challenges.

Practitioners can reference these resources, along with this document, when considering the implications of freight decisions for minority and low-income populations.

EJ in Safety

Introduction

This section discusses transportation safety, a priority for all individuals and communities. Federal Highway Administration (FHWA) staff can use safety measures and tools to understand and address environmental justice (EJ) issues.

Practitioner

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Key Questions to Consider for EJ in Safety

FHWA staff should consider the following key questions related to EJ in safety. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have practitioners assessed whether plans and projects will have adverse safety impacts on minority and low-income communities?
- Have practitioners considered EJ as a factor in prioritizing safety improvements?
- Have practitioners identified and addressed communication barriers to ensure that minority and low-income communities are aware of safety issues and can provide input?
- Have practitioners supplemented safety data with inclusive public involvement in determining where safety improvements would be most effective for minority and low-income populations and for all populations in the study area?

Transportation practitioners can improve safety through a comprehensive “4 E” approach:

- Engineering/infrastructure improvements.
- Educational approaches, such as programs that promote safety awareness.
- Enforcement activities.
- Emergency response.

Practitioners can address safety through multiple disciplines, such as planning, design, construction, and maintenance and operations. The [FHWA Office of Safety](#) promotes programs and technologies to improve the safety performance of the Nation’s roadways. The FHWA Office of Safety partners with the FHWA Office of Planning to offer resources on [Transportation Safety Planning](#). The [National Highway Traffic Safety Administration \(NHTSA\)](#) offers technical assistance on behavioral aspects of safety.

Requirements

Title 23 United States Code (U.S.C.) 148 requires every State DOT to develop and regularly update a Strategic Highway Safety Plan (SHSP) that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The SHSP is based on a data-driven analysis that evaluates where State departments of transportation (DOTs) need to make safety improvements. It outlines goals, objectives, and emphasis areas for implementing improvements. The State DOT is responsible for developing the SHSP with input from local, State, Federal, Tribal, and private-sector stakeholders. FHWA provides technical assistance to State DOTs as they update their SHSPs. Title 23

U.S.C. 134(h) and 135(d) require State DOTs and metropolitan planning organizations (MPOs) to consider eight planning factors, including one on safety: “increase the safety of the transportation system for motorized and non-motorized users.” Where appropriate, agencies should address EJ issues in developing SHSPs and in planning for safety improvements.

Recommendations

Safety is important for everyone, and practitioners should consider EJ as part of safety analyses. Depending on the context, there may be safety issues that are particularly relevant for minority or low-income populations. For example, in areas where minority or low-income populations are dependent on transit, safety and security amenities (such as lighting, emergency call boxes, or shelters) at transit stations, and especially bus stops, may be important considerations. In areas where minority or low-income populations are dependent on walking as a primary mode of transportation, improvements to pedestrian infrastructure could dramatically improve safety.

Practitioners should educate the public about behavioral changes that may minimize safety risks, such as waiting for the “walk” signal before crossing streets or wearing bright clothing when walking or cycling near heavily trafficked streets at night. Practitioners should also communicate with, educate, and empower communities to engage with local, State, and Federal agencies on safety issues. Cultural, literacy, and language barriers may prevent low-income and minority individuals from participating in community meetings about safety, so practitioners may need to make special efforts to involve them. The FHWA Office of Safety provides a variety of resources to assist with this outreach. As one example, the Office of Safety provides educational flyers and brochures for pedestrians and bicyclists, including [Spanish language materials](#). For additional resources please consult the [FHWA Office of Safety website](#). The National Center for Safe Routes to School also provides a variety of resources, including a resource guide on [Implementing Safe Routes to School in Low-Income Schools and Communities](#).

Coordination of land use and transportation planning also provides opportunities to enhance safety for all users. Matching the characteristics of the transportation system to the needs and characteristics of surrounding land uses helps to avoid conflicts and better meets the needs of the community. [Context sensitive solutions](#) is one way to address this. The concept is described in more detail in the final section of this document: “Changing Context: Relationship of EJ to Other Concepts and Movements.”

Data Collection and Analysis

A combination of crash data, roadway data, and demographic information can help practitioners understand where and why incidents occur and identify where safety improvements would be most effective. The FHWA Office of Safety provides a variety of data resources through the [FHWA Roadway Safety Data Program](#). In addition, NHTSA provides a variety of data resources through the [NHTSA National Center for Statistics and Analysis](#). Practitioners should consult the [FHWA Office of Safety](#) and [NHTSA](#) websites for additional resources and information on safety.

Practitioners may be able to make inferences about the social equity of safety conditions by using geospatial analysis tools. For example, practitioners may use geographic information systems (GIS) to juxtapose the locations of safety incidents with demographic data. However, it can be difficult to definitively assess whether safety conditions are equitable because crash records usually do not include demographic data such as race, ethnicity, country of origin, or income. For that reason, practitioners should supplement safety data sources with inclusive public involvement. Residents can help to identify potential safety issues where countermeasures may be appropriate.

Consultation with Federally Recognized Tribal Governments

Introduction

The [Federal Highway Administration \(FHWA\) Environmental Justice \(EJ\) Order 6640.23A](#)

identifies American Indian and Alaskan Native communities as populations that the agency should protect from “disproportionately high and adverse human health or environmental effects of programs, policies, and activities.” Acknowledging that FHWA projects may impact sovereign Tribal Nations directly or indirectly, this section discusses the need to consult with the Governments of federally recognized Tribes, establish trust, and integrate the information gathered during consultation into EJ analysis.

Non-Federally Recognized Tribes

This section only addresses Government-to-Government consultations with federally recognized Tribes. However, American Indians and Alaskan Natives that are not part of federally recognized Tribes are still protected populations according to the FHWA EJ Order. The rest of this document provides practitioners with a framework for involving and addressing the needs of those individuals.

Key Questions for Consulting with Tribal Governments

FHWA staff should consider the following key questions in consulting with Tribal Governments. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have FHWA staff and funding recipients accorded Tribal Governments the respect due to a sovereign nation?
- Have FHWA funding recipients worked with Tribes to identify times and locations for meetings that are convenient for the Tribal representatives?
- Have FHWA staff and/or funding recipients considered potential effects on Tribal sacred sites, properties of religious and cultural significance, or natural resources of concern?

FHWA is committed to recognizing Tribal sovereignty, including consulting and working with federally recognized Tribes on a Government-to-Government basis to plan, develop, and implement projects that positively affect Tribes and Tribal communities. FHWA is also committed to building relationships between the Federal Government, Tribal Governments, State departments of transportation (DOTs), metropolitan planning organizations (MPOs), and local governments. For additional information on Tribal Governments and transportation, visit the [FHWA Tribal Transportation Planning Website](#) and the Tribal Issues section of the [FHWA Environmental Review Toolkit](#).

Requirements

The U.S. Constitution, as well as various Supreme Court decisions, statutes, executive orders, and policies, require FHWA and other Federal agencies to consult with Tribes regarding policy and regulatory

matters.³⁴ The [U.S. Department of Transportation \(USDOT\) Tribal Consultation Plan](#) provides guidelines for Tribal consultation in actions that may affect Tribes.

According to 23 United States Code (U.S.C.) 134 and 23 U.S.C. 135, the responsibility to ensure Tribal consultation in the planning process lies with the entity responsible for planning, whether an MPO, rural planning partner, or the State DOT. However, FHWA is ultimately responsible for ensuring that Tribal consultation occurs in subsequent phases of project development. In instances where federally recognized Tribes agree, FHWA may delegate certain activities to other parties such as a State DOT. However, this delegation cannot include the responsibility for Government-to-Government Tribal consultation.

During project development, Section 106 of the National Historic Preservation Act of 1966 ([16 U.S.C. 470f](#)) also requires Federal agencies to make a reasonable and good faith effort to identify federally recognized Tribes that they should consult through the [Section 106 consultation process](#). Federal agencies must consult with federally recognized Tribes; consider whether proposed actions may impact historic properties of religious and cultural significance to Tribes; and consider measures to avoid, minimize, or mitigate any adverse effects to those properties. The Section 106 consultation process is not the same as an EJ analysis but EJ may be relevant for Section 106 and vice versa. For additional information on Tribal consultation in the context of Section 106, use the following links:

- U.S. Advisory Council of Historic Preservation's [Consultation with Indian Tribes in the Section 106 Review Process: A Handbook](#)
- [FHWA Section 106 Tribal Consultation Questions and Answers](#)

The Tribal Transportation Program (TTP, formerly the Indian Reservation Roads Program) regulations at [25 Code of Federal Regulations \(CFR\) 170](#) require the Department of Interior's Bureau of Indian Affairs (BIA), FHWA, and State and local agencies to incorporate nondiscrimination and EJ principles as integral program elements of the TTP, and to consult with Tribes in the initial stages of program development to "identify potential discrimination and to recommend corrective actions to avoid disproportionately high and adverse effects on Tribes and Native American populations." According to those regulations, such effects may include, but are not limited to, the following:

- Impeding access to Tribal communities or activities.
- Creating excessive access to culturally or religiously sensitive areas.
- Negatively affecting natural resources, trust resources, Tribal businesses, and religious and cultural sites.
- Harming culturally important plants and animals.
- Impairing the abilities of Tribal members to engage in commercial, cultural, and religious activities.

³⁴ [E.O. 13175](#); [Johnson v. M'Intosh](#) 21 U.S. 543 (1823); [Cherokee Nation v. Georgia](#), 30 U.S. 1 (1831); [Worcester v. Georgia](#), 31 U.S. 515 (1832); 40 CFR [1501.2](#) and [1501.7](#)

Consultation in Planning

Most Tribal Governments create their own transportation improvement programs (TIPs) for proposed improvements on Tribal lands based on funding they receive directly from the Federal Government. The Secretaries of the U.S. Department of Transportation and Department of Interior approve these TIPs, and then State DOTs and MPOs incorporate the relevant components, without changing them, into their respective TIPs. Some Tribes do not create their own TIPs, but even those that do not may still have an interest in the TIP developed by a neighboring State or MPO. Tribes only work with MPOs and State DOTs on regionally significant projects. Title 25 CFR 170 directs Tribal Governments, State DOTs, and MPOs to consult with each other about regional projects to ensure that Tribal TIPs incorporate any changes to roads on reservations or trust lands projects.³⁵

If it appears that discrimination or adverse impacts occur during transportation planning, [25 CFR 170.111](#) states that Tribes should first “take reasonable steps to resolve the problem directly with the State or local Government involved and then contact the BIA, FHWA, or the Federal Transit Administration (FTA), as appropriate, to report the problem and seek assistance in resolving it.” During subsequent phases of project development, if it appears that disproportionately high and adverse impacts will likely occur, the project sponsor or the Tribe(s) should notify FHWA and FHWA should consult with the Tribe(s) and other parties to resolve the issues.

Consultation in Subsequent Phases of Project Development

As early as possible in project development, FHWA shall act in accordance with the principles of Section 106 by consulting with Tribes to identify sacred sites, properties of religious and cultural significance, and natural resources of concern on or off Tribal lands. While FHWA is responsible for Government-to-Government consultation, typically the State DOT or MPO will handle some of this step. For example, the FHWA Division Office might initiate consultation efforts with a letter to the Tribal Government and the State DOT or MPO might then continue with day-to-day consultation activities. The State DOT or MPO should then evaluate potential impacts of the undertaking on those resources.³⁶ If a Tribe elects to provide culturally sensitive information, the Tribe does not have to share further details. There is no requirement that a Tribe provide information that it deems sensitive.

Recommendations

When interacting with Tribal Governments, agencies should respect that federally recognized Tribes are sovereign nations and have a unique legal relationship with the United States as set forth in the Constitution of the United States, treaties, statutes, and court decisions. Therefore, interacting with Tribal Governments is not the same as interacting with a local government or with the public. All honor and respect accorded to the Tribal Governments should be conveyed in the Government-to-Government relationship. While the over-arching relationship of the Federal Government to a Tribal Government is that of a sovereign nation to a sovereign nation, States and local Governments can and do have Government-to-Government relationships with Tribes when no Federal nexus exists. In the State and metropolitan transportation planning processes, the responsibility to consult with federally recognized Tribes falls to the State DOTs and MPOs.

³⁵ [25 CFR 170.110; 25 CFR 170.415\(3\); and 25 CFR 170.428](#)

³⁶ [FHWA Planning Processes: Tribal Consultation](#)

To involve Tribal Governments in the planning process, FHWA planners should encourage consensus building between State and local agencies, and Tribal representatives about all aspects of the transportation planning process, up to and including document review times and the location of planning meetings. Jointly agreeing on all aspects of the planning process in a State or MPO region will promote full participation of Tribal representatives, especially those who reside in rural areas.

As with any group of people, there might be differences of opinion within a Tribe or among Tribes with overlapping areas of interest. Therefore, consultation should begin as early as possible to allow adequate time to identify and meaningfully consider such differences—consultation should be a timely exchange of information and discussion. Training in conflict resolution or mediation may help address controversy regarding places or properties of religious or cultural significance to one or more Tribes. This training could include FHWA National Highway Institute Trainings [Practical Conflict Management Skills for Environmental Issues](#) or [Beyond Compliance: Historic Preservation in Transportation Project Development](#). FHWA, the State DOT, and/or local transportation agencies should also ask federally recognized Tribes if any resources of cultural and/or religious significance on non-Tribal lands (private or publicly owned) should be considered in the planning and project development processes. This is particularly important where burials or funerary objects might be present.

Ensuring Nondiscrimination Compliance on a Program Level

Introduction

This section discusses the Federal Highway Administration (FHWA) Title VI Program, which is a critical tool for ensuring environmental justice (EJ) compliance. Executive Order 12898 emphasizes that Federal agencies should use existing laws and programs to achieve EJ, including Title VI of the Civil Rights Act of 1964 (Title VI). The FHWA Title VI **Program** is broader than the Title VI **statute** and addresses other nondiscrimination statutes and authorities, including Executive Order 12898 on EJ. The FHWA Office of Civil Rights oversees FHWA's Title VI Program, which ensures that FHWA policies, programs, and activities do not discriminate based on race, color, national origin, income, sex, age, disability, or limited English proficiency (LEP).

Recipient

In this section, the term “recipients” refers to the agencies that receive funding from FHWA, whether directly or indirectly. “Sub-recipient” is more specific and refers to an agency that receives FHWA funding indirectly.

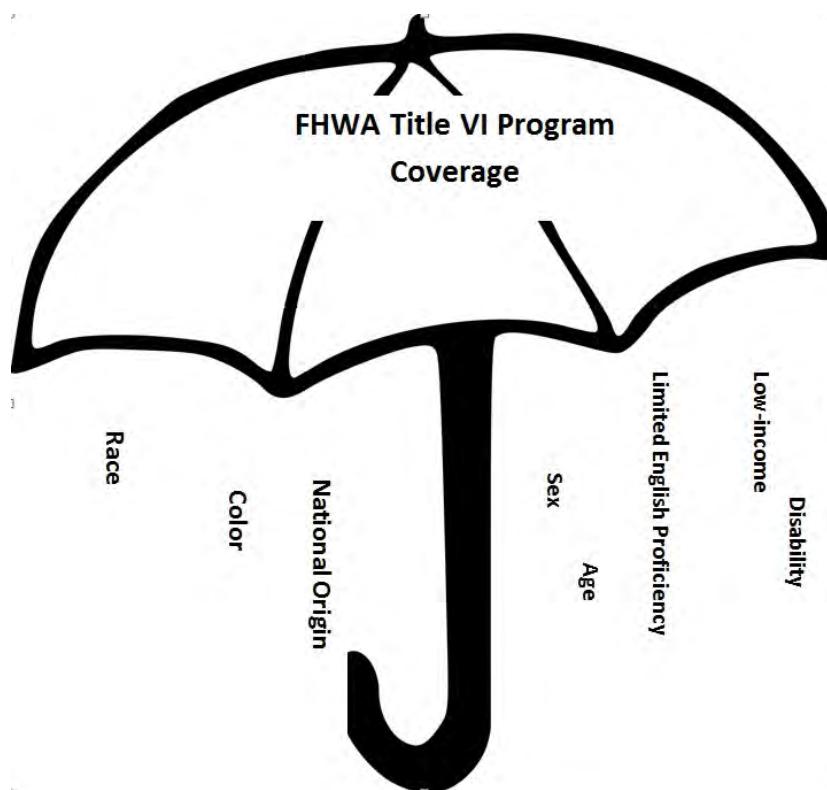


Figure 9: The FHWA Title VI Program is broader than the Title VI statute and encompasses other nondiscrimination statutes and authorities under its umbrella, including Executive Order 12898 on EJ.

Key Questions for Ensuring Nondiscrimination on a Program Level

FHWA staff should consider the following key questions in using the FHWA Title VI Program to advance EJ. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- Have recipients of FHWA funds considered how to most effectively use the data collection and reporting requirements of the Title VI Program to gather information in support of EJ?
- Have recipients considered how the Title VI Program can strengthen and support the concepts presented in the other sections of this document?

The FHWA Title VI Program uses several tools to ensure nondiscrimination. Every recipient of FHWA financial assistance must submit a Title VI Program Implementation Plan that describes how the recipient reviews program areas to identify disparate impacts on the public that may constitute discrimination. The FHWA Office of Civil Rights conducts reviews of recipient State departments of transportation (DOTs) to ensure compliance with these requirements and to strengthen programs containing deficiencies. FHWA funding recipients should consider how the Title VI Program can support EJ implementation.

Requirements for Recipients

Program Area Reviews

The FHWA Title VI Program regulation, 23 Code of Federal Regulations (CFR) Part 200, requires State DOTs to conduct annual reviews of all pertinent program areas to determine the effectiveness of activities designed to ensure nondiscrimination. If the recipient determines that a program causes disproportionately high and adverse impacts to a given population group relative to other population group(s), then the recipient must analyze the disparate impact. The analysis should seek to demonstrate that the disparate impact is nondiscriminatory in nature and that less discriminatory alternatives were not available. The Federal program areas may include: Planning, Environment, Design, Right-of-Way, Contract/Contract Administration, Construction, Maintenance and Operations, Safety, Research, and Training.

To inform the program area reviews, the Title VI regulation further requires recipients to collect demographic and economic data about their populations, identify trends and impacts associated with their program areas, and determine whether one or more of the population groups has borne disproportionately high and adverse impacts. Regular data collection for the Title VI Program can contribute to the EJ process by informing data collection during planning and project development.

Assurances

FHWA requires every recipient of FHWA financial assistance to sign a document subjecting them to the Standard Title VI Assurances and Nondiscrimination Provisions (Assurance). EO 12898 is one of the numerous statutory, regulatory, and executive authorities to which the Assurance binds its signatories. The reference to “minority” under EO 12898 is included as a protected group under Title VI as “race.” The Assurance applies to all of the recipient’s program areas that impact or involve the public, and it prohibits discrimination in the selection and retention of contractors and subcontractors for Federal-aid highway projects. Specifically, the Assurance requires recipients and sub-recipients to insert

nondiscrimination language into all contracts. Recipients are ultimately responsible for ensuring that all sub-recipients include this language. This requirement can help practitioners ensure EJ compliance in design, construction, and other phases of project development.

Monitoring of Sub-recipients

Each recipient of FHWA funds is responsible for monitoring the Title VI and nondiscrimination compliance of its sub-recipients, which includes: ensuring sub-recipients provide Assurances (as described above), conducting process and program reviews, and collecting and analyzing data. Each sub-recipient should identify a Title VI Program coordinator and develop a Title VI Program Nondiscrimination Plan patterned after the recipient's plan. The recipient should require sub-recipients to report on an annual basis to assist the recipient in determining whether the sub-recipient is in compliance with Title VI and other nondiscrimination requirements. The reporting structure of the Title VI Program can help FHWA and funding recipients to ensure accountability for EJ compliance.

Notifications

Recipients and sub-recipients are responsible for providing Notifications to Beneficiaries detailing their Title VI and other nondiscrimination obligations and notifying the public of the protections against discrimination that Title VI and other nondiscrimination requirements afford to them. Recipients are ultimately responsible for ensuring that all sub-recipients follow this requirement. Recipients can use this requirement to help improve communication with underserved populations, such as low-income or minority individuals.

FHWA Title VI Compliance Review Program

The FHWA Title VI regulation requires that FHWA conduct compliance reviews of all recipients, helping recipients strengthen their programs by maintaining compliance with Title VI and other nondiscrimination requirements. The FHWA Office of Civil Rights helps to enforce EJ through this program.

Before a compliance review, the Office of Civil Rights provides the local Division Office with information about processes, compliance requirements, and a list of questions that the Office of Civil Rights will ask during the review. The Division Office works alongside recipients throughout the whole process to keep them informed and involved. FHWA makes this information available to each recipient throughout the review.

Changing Context: EJ in Relation to Other Concepts and Movements

Introduction

This section describes some initiatives and funding opportunities related to environmental justice (EJ). The Federal Highway Administration (FHWA) is committed to finding ways to integrate EJ into other ongoing initiatives. The topics in this section include the following:

- Livability
- Nonmotorized Transportation
- Context Sensitive Solutions
- Health in Transportation
- Sustainability
- Ladders of Opportunity and Economic Development
- Transportation Investments Generating Economic Recovery Grant Program
- Transportation Alternatives Program
- Recreational Trails Program
- PlanWorks

Practitioner

In this document, the term “practitioner” refers to the agency staff directly conducting an activity or project, which in most cases will be FHWA funding recipients, such as State departments of transportation and metropolitan planning organizations. FHWA primarily serves in an oversight and advisory role.

Key Questions on EJ in Relation to Other Concepts and Movements

FHWA staff should consider the following key questions in reflecting on this section. These are not intended to be prescriptive or exhaustive, and they may not be applicable to every situation:

- What opportunities are there for advancing EJ through other programs and initiatives?
- How does EJ relate to and support the concepts described in this section?

Livability

At the U.S. Department of Transportation (USDOT), livability focuses on tying the quality and location of transportation facilities to broader opportunities; such as, access to good jobs, affordable housing, quality schools, and safe streets. FHWA promotes livable communities by funding transportation projects and building practitioner capacity. Social equity is an important component of livability. To access more information and resources on livability, visit the [FHWA Livability website](#).

FHWA works within the [Interagency Partnership for Sustainable Communities \(PSC\)](#) to coordinate Federal investments in support of livable communities. The PSC is a partnership between three Federal agencies: USDOT, the U.S. Department of Housing and Urban Development (HUD), and the U.S. Environmental Protection Agency (EPA). The PSC developed six principles to guide livability efforts:

- Provide more transportation choices.
- Promote equitable, affordable housing.
- Enhance economic competitiveness.

- Support existing communities.
- Coordinate policies and leverage investment.
- Value communities and neighborhoods.

The PSC created Team EJ, a working group focused on the connections between EJ, health, and sustainable communities. Co-chaired by EPA's Office of Environmental Justice and HUD's Office of Sustainable Housing and Communities, Team EJ strives to understand how EPA, HUD, USDOT, and the Centers for Disease Control and Prevention (CDC) can integrate EJ, health, and sustainability goals and use existing resources to address EJ needs. Toward that end, Team EJ organized relevant information on the [sustainability page of the EPA EJ website](#), compiled a [list of mapping tools](#) to identify assets and hazards, and published a [lexicon](#) that shows how each agency defines relevant terms.

Example: Reintegrating Access-Controlled Highways into the Urban Fabric

Across the Nation many communities have expressed interest in eliminating access-controlled highways in urban areas and reintegrating those roads into the urban fabric. FHWA's involvement with this effort to date has focused on withdrawing routes from the [Interstate Highway System](#), although the trend is not limited to Interstates. In many cases, State DOTs propose to convert the former highway segments into boulevards (walkable, low-speed, divided roadways designed to carry both through and local traffic). Many highways traverse low-income and minority neighborhoods, so this trend is particularly relevant for EJ. Such transformations can bring both benefits and burdens. For example, some may welcome the boulevard and the potential resulting increase in economic and recreational opportunities. Others may prefer the original highway and view it as a vital cross-town route that improves mobility. As with any transportation action, it is important that practitioners involve all stakeholders and strive to balance priorities as equitably as possible before reaching a decision.

Nonmotorized Transportation

By providing safe and convenient facilities for multiple modes, a community can ensure that all residents have access to transportation. Many individuals do not have an option to drive and may rely on alternative forms of transportation, such as bicycling and walking. The Pedestrian and Bicycle Information Center provides equity information on its [social justice](#) page. The League of American Bicyclists provides a toolkit, reports, and other resources related to equity as part of its [equity initiative](#).

Context Sensitive Solutions

Context sensitive solutions (CSS) is a collaborative, interdisciplinary, holistic approach that involves all stakeholders to develop transportation projects that fit a community's setting. CSS is both a process and product, and it integrates project, agency, and community priorities into decisionmaking. The CSS principles can help agencies promote EJ. For example, one CSS strategy is to "use a full range of communication strategies." This is important for social equity, as many underserved populations may be difficult to reach. For more information on CSS, visit the [FHWA CSS website](#).

Health in Transportation

Transportation can affect human health in several ways including: safety; air quality; physical activity; access to goods, services, and job opportunities; and noise. [Executive Order \(EO\) 12898](#) states that each Federal agency shall identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Practitioners should develop transportation options that promote and improve human health and ensure that programs do not impose a disproportionately high and adverse human health effect on minority and low-income populations. For more information on health and transportation, visit the [FHWA Health in Transportation website](#).

Sustainability

FHWA defines sustainability according to the triple bottom line, which includes social, economic, and environmental considerations. EJ is an important consideration for all three branches of the triple bottom line. For more information on the human environment and sustainability, view section 3.4 of the [FHWA Sustainability Report](#). For general information on sustainability, visit the [FHWA Sustainable Highways Initiative website](#). FHWA developed the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) to help transportation agencies measure their performance on sustainability and target improvements. INVEST includes several criteria that relate to social equity, such as a criterion on [access and affordability](#). FHWA also provides a variety of resources related to climate change. The [adaptation page](#) of the FHWA climate change website may be especially relevant for EJ because the 2014 Intergovernmental Panel on Climate Change [Fifth Assessment Report](#) indicates that low-income populations and minority populations may be particularly vulnerable to climate change impacts.

Ladders of Opportunity and Economic Development

[Ladders of Opportunity](#) is a White House initiative that builds economic opportunities for low-income populations working hard to reach the middle class. The USDOT is committed to building ladders of opportunity by providing affordable transportation options and by improving residents' quality of life through access to education and employment opportunities. The USDOT recognizes that transportation and economic opportunity are interconnected: transportation costs are the second largest expense for U.S. households, low-income households are less likely to own a car compared to higher income households, and unreliable transit and unsafe streets can interfere with reaching jobs and other essential services. The USDOT and FHWA promote policies and activities that encourage economic development through transportation. This concept is strongly tied to EJ, as transportation has the potential to improve economic opportunities for minority and low-income communities. FHWA offers two tools through the second Strategic Highway Research Program that can help agencies promote economic development:

- [Transportation Project Impact Case Studies \(T-PICS, C03\)](#) is a tool that planners can use to help measure the economic impacts of a transportation project.
- [Tools for Assessing Wider Economic Benefits of Transportation \(C11\)](#) is a suite of spreadsheet-based analysis tools that agencies can use to assess the likely economic consequences of transportation project proposals.

For more information, visit the [FHWA Economic Development website](#).

Transportation Investments Generating Economic Recovery Discretionary Grant Program

Through the [Transportation Investment Generating Economic Recovery \(TIGER\)](#) discretionary grant program, USDOT provides funding for projects that will improve safety, economic competitiveness, state of good repair, livability, and environmental sustainability. USDOT also evaluates projects based on their expected contributions to economic recovery, innovation, and new partnerships. This program is a potential opportunity to garner resources that can benefit low-income people, minorities, and underserved neighborhoods.

Transportation Alternatives Program

The [Transportation Alternatives Program \(TAP\)](#) provides funding for programs and projects defined as *transportation alternatives*, including: on- and off-road pedestrian and bicycle facilities; infrastructure projects to improve mobility for non-drivers; community improvement activities; environmental mitigation; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards (walkable, low-speed, divided roadways in urban environments designed to carry both through and local traffic). State DOTs may also use their [Surface Transportation Program \(STP\)](#) funds for these types of projects. State DOTs and large MPOs use a competitive selection process to select TAP projects submitted by eligible entities (local governments, transit agencies, natural resource agencies, school districts, and Tribal governments). Where applicable, State DOTs should consider social equity as a selection criterion. Below are a few examples of programs eligible for TAP funding:

- **Pedestrian and Bicycle Access:** TAP funds can fund the construction of accessible sidewalks and the creation of networks for pedestrians and bicyclists.
- **Safe Routes to School:** Many low-income families rely on walking and bicycling, and greatly benefit from programs to ensure that there are safe routes to school. Activities include building safer street crossings and ensuring access to sidewalks and bicycle lanes. For more information, visit the [FHWA Safe Routes to School website](#).

Recreational Trails Program

The Recreational Trails Program (RTP) provides funds to States to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized uses. Practitioners should consider whether recreational trails are equally accessible to all communities, because there are multiple associated benefits. For example, access to recreational trails can improve public health by promoting active lifestyles. For more information on the RTP, visit the [FHWA RTP website](#). Although the RTP funds are a subset of TAP funds, the RTP functions as a separate program. Most States administer the RTP through a State resource agency.

PlanWorks

PlanWorks (the beta version was known as *Transportation for Communities – Advancing Projects through Partnerships*, or TCAPP) is a tool that supports collaborative decisionmaking in transportation planning and project development. PlanWorks suggests when and how to involve cross-disciplinary partners and stakeholder groups. PlanWorks can help transportation professionals consider EJ throughout the entire planning and project development process. PlanWorks will be available in 2015 and the FHWA EJ website will link to it when it is available. The beta version of PlanWorks is currently available at: <https://fhwaapps.fhwa.dot.gov/planworks/default.aspx>.

Conclusion

The Federal Highway Administration (FHWA) remains committed to advancing environmental justice (EJ) through its policies, programs, and activities. The agency hopes that staff will use this document to inform their work and share it with partners to help them understand how to work with FHWA on EJ. **This document does not establish any new requirements.** FHWA intends to update the document as necessary so that it will remain current. For feedback or questions, please contact one of the FHWA staff listed below in the “Contacts” section.

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Appendix

Other Nondiscrimination Requirements

- Statutes related to metropolitan and statewide transportation planning (23 United States Code (U.S.C.) [134](#) and [135](#) and 49 U.S.C. [5303](#) and [5304](#))
- [Title VI of the Civil Rights Act of 1964](#) (Title VI)
- FHWA Title VI Program Regulation ([23 Code of Federal Regulations \(CFR\) 200](#))
- Americans with Disabilities Act of 1990 ([42 U.S.C. 12101](#) et seq.)
- In States containing nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended ([42 U.S.C. 7504](#), [7506](#) (c) and (d))
- Age Discrimination Act of 1975, as amended ([42 U.S.C. 6101](#))
- [Title 23 U.S.C. 324](#) prohibiting discrimination based on sex
- Section 504 of the Rehabilitation Act of 1973 ([29 U.S.C. 794](#)) preventing discrimination against individuals with disabilities
- [Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency](#)

Resources

Federal Statutes, Regulations, and Executive Orders

- [Executive Order 12898 on Environmental Justice](#)
- [Title VI of the Civil Rights Act of 1964](#)
- [FHWA Regulations on Title VI \(23 CFR 200\)](#)
- [Title 23 U.S.C. 109\(h\)](#)
- [Uniform Relocation Assistance and Real Property Acquisition Act of 1970](#)
- Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations ([40 CFR 1500-1508](#))
- FHWA and Federal Transit Administration (FTA) NEPA Regulations ([23 CFR 771](#))
- Statewide and Metropolitan Planning and Programming Regulations ([23 CFR 450](#))

Agency-specific Orders and Guidance

- [CEQ EJ Guidance under NEPA](#)
- [U.S. Department of Transportation \(USDOT\) EJ Order 5610.2\(a\)](#)
- [USDOT EJ Strategy](#)
- [FHWA EJ Order 6640.23A](#)
- [FHWA Guidance on EJ and NEPA \(2011\)](#)
- [FTA EJ Circular 4703.1](#)
- [Uniform Act Guidance on "Low-Income" Calculations](#)
- [U.S. Department of Health and Human Services \(HHS\) Poverty Guidelines](#)

Reports, Handbooks, and Best Practices

- [FHWA EJ Emerging Trends and Best Practices Guidebook \(2011\)](#)
- [FHWA EJ and NEPA Case Studies \(2012\)](#)
- [USDOT EJ Case Studies \(2000\)](#)
- [NCHRP Report 710: Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking](#)
- [NCHRP Report 532: Effective Methods for Environmental Justice Assessment](#)

- [NCHRP Report 456: Guidebook for Assessing the Social and Economic Effects of Transportation Projects](#)
- [Community Impact Assessment: A Quick Reference for Transportation](#)
- [How to Engage Low-Literacy and Limited-English Proficiency Populations in Transportation Decisionmaking](#)
- [FHWA Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts of Road Pricing](#)
- [NCHRP Report 686: Road Pricing: Public Perceptions and Program Development](#)
- [EPA Report, A Citizen's Guide to Using Federal Environmental Laws to Secure Environmental Justice](#)

Websites

- [FHWA EJ Website](#)
- [Federal Interagency EJ Work Group Website](#)
- [FHWA Civil Rights Website](#)
- [FHWA Public Involvement Website](#)
- [Transportation Planning Capacity Building Public Engagement Website](#)
- [FHWA Tribal Transportation Planning website](#)
- [FHWA Livability Website](#)

Sources for Current Information

- [Human Environment Digest](#)
- Annual EJ [Implementation Report](#) for USDOT